RIVERS AND HARBORS—FLOOD CONTROL

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HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON PUBLIC WORKS UNITED STATES SENATE

EIGHTY-FOURTH CONGRESS

SECOND SESSION

ON

H. R. 12080

A BILL AUTHORIZING THE CONSTRUCTION, REPAIR, AND PRESERVATION OF CERTAIN PUBLIC WORKS ON RIVERS AND HARBORS FOR NAVIGATION, FLOOD CONTROL, AND FOR OTHER PURPOSES, AND MISCELLANEOUS RELATED BILLS

JULY 16, 17, AND 18, 1956

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RIVERS AND HARBORS—FLOOD CONTROL

MONDAY, JULY 16, 1956

UNITED STATES SENATE,
COMMITTEE OF PUBLIC WORKS,
SUBCOMMITTEE ON FLOOD CONTROL—RIVERS AND HARBORS,
Washington, D. C.

The subcommittee met, pursuant to notice, at 10:05 a. m., in room 412, Senate Office Building, Hon. Robert S. Kerr (chairman of the subcommittee) presiding.

Present: Senators Chavez (chairman of the committee), Kerr (chairman of the subcommittee), Gore, Neuberger, Bush, Kuchel, Cotton, Hruska, Martin, Humphreys, and Langer; and Congressman Miller.

Senator KERR. The committee will come to order.

We have before us for consideration today H. R. 12080.

(The bill is as follows:)

[H. R. 12080, 84th Cong., 2d sess.]

AN ACT Authorizing the construction, repair, and preservation of certain public works on rivers and harbors for navigation, flood control, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—RIVERS AND HARBORS

SEC. 101. That the following works of improvement of rivers and harbors and other waterways for navigation, flood control, and other purposes is hereby adopted and authorized to be prosecuted under the direction of the Secretary of the Army and supervision of the Chief of Engineers, in accordance with the plans and subject to the conditions recommended by the Chief of Engineers in the respective reports hereinafter designated: *Provided*, That the provisions of section 1 of the River and Harbor Act appeared March 2, 1945 (Public Law Numbered 14, Seventy-ninth Congress, first session), shall govern with respect to projects authorized in this title; and the procedures therein set forth with respect to plans, proposals, or reports for works of improvement for navigation or flood control and for irrigation and purposes incidental thereto, shall apply as if herein set forth in full:

NAVIGATION

Salem Harbor, Massachusetts: Report of the Board of Engineers for Rivers and Harbors, dated June 19, 1956, at an estimated cost of $1,100,000;

Boston Harbor, Massachusetts: House Document Numbered 349, Eighty-fourth Congress, at an estimated cost of $720,000;

New York Harbor, New York: Senate Document Numbered 45, Eighty-fourth Congress, at an estimated cost of $1,678,000;

Baltimore Harbor and Channels, Maryland: Division Engineer's report, dated June 15, 1956, at an estimated cost of $25,816,000;

Herring Creek, Maryland: House Document Numbered 159, Eighty-fourth Congress, at an estimated cost of $110,000;

Betterton Harbor, Maryland: House Document Numbered 333, Eighty-fourth Congress, at an estimated cost of $78,000;

Morehead City Harbor, North Carolina: Senate Document Numbered 54, Eighty-fourth Congress, at an estimated cost of $1,197,000;

Escambia River, Florida: Report of Division Engineer dated May 4, 1956, at an estimated cost of $61,000;

Gulfport Harbor, Mississippi: Senate Document Numbered 123, Eighty-fourth Congress, maintenance;

Pass Cavallo to Port Lavaca, Texas: House Document Numbered 131, Eighty-fourth Congress, at an estimated cost of $413,000;

Matagorda Ship Channel, Port Lavaca, Texas: House Document Numbered 388, Eighty-fourth Congress, at an estimated cost of $9,944,000;

Freeport Harbor, Texas: House Document Numbered 433, Eighty-fourth Congress, at an estimated cost of $317,000;

Mississippi River between Missouri River and Minneapolis, Minnesota, damage to levee and drainage districts: House Document Numbered 135, Eighty-fourth Congress, at an estimated cost of $2,476,000;

Mississippi River at Alton, Illinois, commercial harbor: House Document Numbered 136, Eighty-fourth Congress, at an estimated cost of $246,000;

Mississippi River at Alton, Illinois, small-boat harbor: House Document Numbered 136, Eighty-fourth Congress, at an estimated cost of $101,000;

Mississippi River at Clinton, Iowa, Beaver Slough: House Document Numbered 345, Eighty-fourth Congress, at an estimated cost of $241,000;

Mississippi River at Clinton, Iowa, report on damages: House Document Numbered 412, Eighty-fourth Congress, at an estimated cost of $147,000;

Mississippi River between Saint Louis, Missouri, and Lock and Dam Number 26: Report of the Board of Engineers for Rivers and Harbors, dated June 19, 1956, at an estimated cost of $5,802,000;

Minnesota River, Minnesota: Plan contained in the report of the Chief of Engineers, dated November 16, 1953, at an estimated cost of $2,539,000;

Ohio River at Gallipolis, Ohio: House Document Numbered 423, Eighty-fourth Congress, at an estimated cost of $66,000;

Licking River, Kentucky: House Document Numbered 434, Eighty-fourth Congress, maintenance;

Two Rivers Harbor, Wisconsin: House Document Numbered 362, Eighty-fourth Congress, at an estimated cost of $66,000;

Saint Joseph Harbor, Michigan: Senate Document Numbered 95, Eighty-fourth Congress, maintenance;

Toledo Harbor, Ohio: House Document Numbered 436, Eighty-fourth Congress, at an estimated cost of $859,000;

Irondequoit Bay, New York: House Document Numbered 332, Eighty-fourth Congress, at an estimated cost of $1,938,000;

Port Townsend Harbor, Washington: House Document Numbered 418, Eighty-fourth Congress, at an estimated cost of $387,000;

Douglas and Juneau Harbors, Alaska: House Document Numbered 286, Eighty-fourth Congress, at an estimated cost of $1,394,000;

Dillingham Harbor, Alaska: House Document Numbered 390, Eighty-fourth Congress, at an estimated cost of $372,000;

Naknek River, Alaska: House Document Numbered 390, Eighty-fourth Congress, at an estimated cost of $19,000;

BEACH EROSION

State of Connecticut, Area 9, East River to New Haven Harbor: House Document Numbered 395, Eighty-fourth Congress, at an estimated cost $12,000;

Fire Island Inlet, Long Island, New York: House Document Numbered 411, Eighty-fourth Congress, at an estimated cost of $2,724,000;

Asbury Park to Manasquan, New Jersey, in accordance with the plan and subject to the conditions for that portion of the shore of New Jersey as recommended by the Chief of Engineers in his report on the shore of New Jersey from Sandy Hook to Barnegat Inlet, House Document Numbered 361, Eighty-fourth Congress, at an estimated cost of $1,677,000;

Manitowoc County, Wisconsin: House Document Numbered 348, Eighty-fourth Congress, at an estimated cost of $50,000;

Fair Haven Beach State Park, New York: House Document Numbered 134, Eighty-fourth Congress, at an estimated cost of $114,000;

Hamlin Beach State Park, New York: House Document Numbered 138, Eighty-fourth Congress,at an estimated cost of $404,000;

San Diego County, California: House Document Numbered 399, Eighty-fourth Congress, at an estimated cost of $289,000.

SEC. 102. That the Secretary of the Army is hereby authorized to reimburse local interests for such work done by them, on the beach erosion projects authorized in section 101, subsequent to the initiation of the cooperative studies which form the basis for the projects: *Provided*, That the work which may have been done on these projects is approved by the Chief of Engineers as being in accordance with the projects hereby adopted: *Provided further*, That such reimbursement shall be subject to appropriations applicable thereto or funds available therefor and shall not take precedence over other pending projects of higher priority for improvements.

SEC. 103. That pending fulfillment of the conditions of local cooperation for the Gulf Intracoastal Waterway, Algiers Canal, as authorized by the River and Harbor Act of March 2, 1945, appropriations heretofore or hereafter made for maintenance of rivers and harbors may be used for a period of not to exceed two years for operation of the railroad bridge over Algiers Canal;

SEC. 104. That there is hereby authorized a comprehensive project to provide for control and progressive eradication of the water hyacinth, alligator weed, and other obnoxious aquatic plant growths from the navigable waters, tributary streams, connecting channels, and other allied waters in the States of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas, in the combined interest of navigation, flood control, drainage, agriculture, fish and wildlife conservation, public health, and related purposes, including continued research for development of the most effective and economic control measures, at an estimated additional cost for the expanded program over that now underway of $1,350,000 annually for five years, of which 75 per centum, presently estimated at $1,012,500, shall be borne by the United States and 25 per centum, presently estimated at $337,500, by local interests, to be administered by the Chief of Engineers, under the direction of the Secretary of the Army in cooperation with other Federal and State agencies in accordance with the report of the Chief of Engineers, published as House Document Numbered —, Eighty-fourth Congress: *Provided*, That local interests agree to hold and save the United States free from claims that may occur from such operations and participate to the extent of 25 per centum of the cost of the additional program: *Provided further*, That Federal funds appropriated for this project shall be allocated by the Chief of Engineers on a priority basis, based upon the urgency and need of each area, and the availability of local funds.

SEC. 105. That for preliminary examination and surveys, authorized in previous river and harbor and flood control Acts, the Secretary of the Army is hereby directed to cause investigations and reports for navigation and allied purposes, to be prepared under the supervision of the Chief of Engineers in the form of survey reports, and that preliminary examination reports shall no longer be required to be prepared.

SEC. 106. That the improvement of Apalachicola Bay, Florida, authorized by the River and Harbor Act of 1954, in accordance with the recommendations of the Chief of Engineers in House Document Numbered 156, Eighty-second Congress; and the improvement of Apalachicola Bay, Florida, channel across Saint George Island, authorized by the River and Harbor Act of 1954, in accordance with the recommendations of the Chief of Engineers in House Document Numbered 557, Eighty-second Congress, are hereby modified to provide that the Secretary of the Army shall reimburse local interests for such work as they may have done upon the projects insofar as this work shall be approved by the Chief of Engineers and found to have been done in accordance with the projects adopted by the Act of 1954: *Provided*, That reimbursement shall be based upon the reduction in the amount of material which will have to be removed to provide project dimensions at such time as Federal dredging of the channel is undertaken: *Provided further*, That such reimbursement shall be subject to appropriations applicable thereto and shall not take precedence over authorized Federal improvements of higher priority.

SEC. 107. That the Federal project structures, appurtenances and real property of the Upper Fox River, Wisconsin, shall be disposed of in accordance with the provisions of this section: *Provided*, That all or any part of the right, title, and interest of the United States to any portion of the said property may, regardless of any other provision of law, be conveyed, upon such terms and conditions as may be advisable: *Provided further*, That the State of Wisconsin offers to take over said property under the terms and conditions hereinafter prescribed, the

Secretary of the Army is hereby authorized to convey by quit-claim deed to said State without monetary consideration all such right, title, and interest of the United States in said property and the United States shall thereafer have no further obligations with respect to the property so conveyed. In consideration of the State accepting such conveyance and assuming responsibility for said property, there is hereby authorized to be expended from appropriations hereafter made for civil functions administered by the Department of the Army toward the work of placing the project facilities in a condition suitable for public purposes, not to exceed $300,000. The Chief of Engineers is authorized to enter into agreements with the duly authorized representatives of the States with respect to the details of the work to be performed and transfer of the property. If the State fails to present a satisfactory offer within two years after the date of enactment of this Act, said property may be disposed of pursuant to the provisions of existing law and upon such terms and conditions as may be determined to be in the public interest: *And provided further*, That after acceptance of said property by the State of Wisconsin, the Federal laws, other than the Federal Power Act, governing the protection and preservation of navigable waters shall not apply to the reach of the Upper Fox River, Wisconsin, above its juncture with the mouth of the Wolf River.

SEC. 108. The project for the Illinois Waterway and Grand Calumet River, Illinois and Indiana (Calumet-Sag navigation project), authorized by the River and Harbor Act of July 24, 1946, is hereby modified in accordance with the recommendations of the Division Engineer in his report dated May 15, 1956, insofar as they apply to existing highway bridges in part I, Sag Junction to Lake Calumet, at an estimated additional cost of $9,884,000.

SEC. 109. (a) The Secretary of the Army hereby is authorized to acquire on behalf of the United States the fee simple title in and to the lands in the lake (known as Sinnissippi Lake) created by the Government dam constructed across Rock River between Sterling and Rock Falls, Illinois, and over which the United States now holds flowage rights or easement, and in and to all other lands upon which the United States has rights or easements used for the purpose of and appurtenant to the operation of the Federal project known as the Illinois and Mississippi Canal (which lake, canal, feeder, and appurtenances thereto are referred to collectively in this section as the canal), in the State of Illinois; said fee simple title to be acquired subject to the continuing right of access to Sinnissippi Lake by the riparian owners whose land adjoins and abuts said lake. Such acquisition may be accomplished by purchase, acceptance of donation, exchange, exercise of power of eminent domain, or otherwise.

(b) The Secretary of the Army further is authorized out of appropriations hereafter made for civil functions administered by the Department of the Army, to cause the canal to be repaired and modified for the purpose of placing the same in proper condition for public recreational use other than through-navigation, including (but not limited to) the repair or reconstruction of the aforesaid Government dam across Rock River; the repair or reconstruction of retaining walls, embankments, and fixed portions of the lock and dam structures, on both the feeder and the main portions of the canal; the removal of presently existing lock gates and the construction of fixed dams in lieu thereof; the repair of culverts, drainage ditches, fences, and other structures and improvements, except bridges and roads, which the United States has maintained or has been obligated to maintain; the replacement of aqueducts with inverted siphons or flumes; such other repair, renovation, or reconstruction work as the Chief of Engineers may deem necessary or advisable to prepare the canal for public recreational use other than through-navigation; and the sale or other disposition of equipment, buildings, and other structures, which are designated by the State of Illinois as not suitable or needed for such use. The work of repair and modification shall be performed by the Corps of Engineers, and upon completion thereof the Chief of Engineers shall certify such completion to the Secretary of the Army. The work of repair and modification authorized in this subsection, as well as the land acquisition authorized in the preceding subsection, shall not be commenced prior to the approval by the Chief of Engineers and the responsible State representative of the agreement authorized in subsection (e) which shall include assurance from the State of Illinois that it will accept the conveyance of all right, title, and interest of the United States in and to the canal. Upon such conveyance the United States shall have no further obligation with respect to the canal.

(c) Upon the request of the State of Illinois and of any corporation owning a railroad which crosses a bridge over the canal, the Secretary of the Army

is authorized to convey to said corporation, at any time before the conveyance of the canal to the State of Illinois as provided in subsection (d) of this section, all right, title, and interest of the United States in and to such bridge, and the delivery of any such bridge conveyance shall operate as a complete release and discharge of the United States from all further obligation with respect to such bridge. If the request also provides for the replacement of such bridge with a land fill, the Secretary of the Army further is authorized to permit the said corporation to make such replacement, but shall require adequate provision for culverts and other structures allowing passage of the waters of the canal and necessary drainage, and for right-of-way for necessary and appropriate road crossings.

(d) The Secretary of the Army further is authorized and directed, upon execution of the foregoing provisions of this section, to convey and transfer to the State of Illinois, by quitclaim deed and such other instruments as the Secretary may deem appropriate, without further consideration, the property of the canal; and to execute such other documents and to perform such other acts as shall be necessary and appropriate to complete the transfer to the said State of all right, title, and interest of the United States in and to the canal. Upon and after the delivery of such deed, the State of Illinois is authorized, at all times, to use such quantity of water drawn from Rock River at Sinnissippi Lake, as is adequate and appropriate to operate the canal for public recreational use other than through-navigation.

(e) In the execution of the provisions of this section, the Chief of Engineers is authorized to enter into agreements with the duly authorized representatives of the State of Illinois with respect to the details of repair and modification of the canal and the transfer thereof to the State.

(f) There is hereby authorized to be appropriated the sum of $2,000,000 to carry out the provisions of this section.

SEC. 110. The Secretary of the Army is hereby authorized and directed to cause surveys to be made at the following named localities and subject to all applicable provisions of section 110 of the River and Harbor Act of 1950:

Stave Island Harbor at South Goldsboro, Maine.

Tashmoo Pond, Martha's Vineyard, Massachusetts.

Hammonds Cove, entrance to Locust Point Harbor, Long Island Sound, New York.

Currioman Bay, Virginia.

Tabbs Creek, Lancaster County, Virginia.

Wrights Creek, North Carolina.

Little Gasparilla Pass, Charlotte County, Florida.

Frenchman Creek, Florida.

Dredged channel, vicinity of Sunshine Skyway, Tampa Bay, Florida.

Apalachicola River Chipola Cutoff, Florida, via Wewahitchka, with a view to providing a channel nine feet deep and one hundred feet wide.

Apalachicola River, Florida, in the vicinity of Bristol and in the vicinity of Blountstown.

Streams at and in the vicinity of Gulfport, Florida.

Channel from Port Inland, Michigan, to deep water in Lake Michigan.

SEC. 111. Title I may be cited as the River and Harbor Act of 1956.

TITLE II—FLOOD CONTROL

SEC. 201. That section 3 of the Act approved June 22, 1936 (Public Law Numbered 738, Seventy-fourth Congress), as amended by section 2 of the Act approved June 28, 1938 (Public Law Numbered 761, Seventy-fifth Congress), shall apply to all works authorized in this title except that for any channel improvement or channel rectification project, provisions (a), (b), and (c) of section 3 of said Act of June 22, 1936, shall apply thereto, and except as otherwise provided by law: *Provided*, That the authorization for any flood-control project herein adopted requiring local cooperation shall expire five years from the date on which local interests are notified in writing by the Department of the Army of the requirements of local cooperation, unless said interests shall within said time furnish assurances satisfactory to the Secretary of the Army that the required cooperation will be furnished.

SEC. 202. The provisions of section 1 of the Act of December 22, 1944 (Public Law Numbered 534, Seventy-eighth Congress, second session), shall govern with respect to projects authorized in this Act, and the procedures therein set forth

with respect to plans, proposals, or reports for works of improvement for navigation or flood control and for irrigation and purposes incidental thereto shall apply as if herein set forth in full.

SEC. 203. The following works of improvement for the benefit of navigation and the control of destructive floodwaters and other purposes are hereby adopted and authorized to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with the plans in the respective reports hereinafter designated and subject to the conditions set forth therein: *Provided*, That the necessary plans, specifications, and preliminary work may be prosecuted on any project authorized in this title with funds from appropriations heretofore or hereafter made for flood control so as to be ready for rapid inauguration of a construction program: *Provided further*, That the projects authorized herein shall be initiated as expeditiously and prosecuted as vigorously as may be consistent with budgetary requirements: *And provided further*, That penstocks and other similar facilities adapted to possible future use in the development of hydroelectric power shall be installed in any dam authorized in this Act for construction by the Department of the Army when approved by the Secretary of the Army on the recommendation of the Chief of Engineers and the Federal Power Commission.

CONNECTICUT RIVER BASIN

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $13,000,000 for the prosecution of the comprehensive plan for the Connecticut River Basin, approved in the Act of June 28, 1938, as amended and supplemented by subsequent Acts of Congress, and such comprehensive plan is hereby modified to include the construction of the Littleville Reservoir on the Middle Branch of Westfield River, Massachusetts, in accordance with plans to be prepared by the Chief of Engineers.

PANTEGO AND CUCKLERS CREEK, NORTH CAROLINA

The project for flood protection on Pantego and Cucklers Creek, North Carolina, is hereby authorized substantially in accordance with recommendations of the Chief of Engineers in House Document Numbered 398, Eighty-fourth Congress, at an estimated cost of $413,000.

SAVANNAH RIVER BASIN

In addition to previous authorizations, there is hereby authorized the completion of Hartwell Reservoir, approved in the Flood Control Acts of December 22, 1944, and May 17, 1950, in accordance with the report of the Chief of Engineers contained in House Document Numbered 657, Seventy-eighth Congress, at an estimated cost of $44,300,000.

CENTRAL AND SOUTHERN FLORIDA

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $40,000,000 for the prosecution of the comprehensive plan for flood control and other purposes in central and southern Florida approved in the Act of June 30, 1948, and subsequent Acts of Congress, and such comprehensive plan is hereby modified to include the following items:

The project for canals, levees, water control structures on the west side of the Everglades agricultural and conservation areas in Hendry County, Florida, in accordance with the recommendations of the division engineer in his report dated June 6, 1956, at an estimated cost of $3,172,000;

The project for rectification of sedimentation conditions in South Fork of Saint Lucie River in the vicinity of Palm City, Florida, caused by operation of the Saint Lucie Canal, by removal of the entire shoal in accordance with plan A presented by the district engineer in his report dated April 27, 1956, at an estimated cost of $165,000: *Provided*, That local interests agree to maintain and operate the project upon completion.

TOMBIGBEE RIVER BASIN

The project for flood control and related purposes on the Tombigbee River and tributaries, Mississippi and Alabama, is hereby authorized substantially in

accordance with recommendations of the Chief of Engineers in his report published as House Document Numbered 167, Eighty-fourth Congress, at an estimated cost of $19,199,000: *Provided*, That in lieu of the cash contribution contained in item (f) of the recommendations of the Chief of Engineers, local interests contribute in cash or equivalent work, the sum of $1,585,000 in addition to other items of local cooperation.

LOWER MISSISSIPPI RIVER

The project for flood control and improvement of the lower Mississippi River adopted by the Act approved May 15, 1928, as amended by subsequent Acts, is hereby modified and expanded to include the following items and the authorization for said project is increased accordingly:

(a) Modification and extension of channel improvement work on the main stem of the Mississippi River substantially in accordance with the recommendation of the Mississippi River Commission in its report of April 5, 1956, at an estimated cost, over that now authorized, of $219,000,000 for construction and $4,800,000 annually for maintenance.

(b) Modification of the White River Backwater project, Arkansas, substantially in accordance with the recommendation of the Mississippi River Commission in its report of April 16, 1956, at an estimated cost, over that now authorized, of $2,380,000 for construction and $57,000 annually for maintenance: *Provided*, That the Secretary of the Interior shall grant to the White River Drainage District of Phillips and Desha Counties, Arkansas, such permits, rights-of-ways, and easements over lands of the United States in the White River Migratory Refuge, as the Chief of Engineers may determine to be required for the construction, operation, and maintenance of this project.

(c) Modification and extension of plan of improvement in the Bouef and Tensas Rivers and Bayou Macon Basin, Arkansas, substantially in accordance with the recommendation of the Mississippi River Commission in its report of October 6, 1955, at an estimated cost of $1,212,000.

(d) In addition to the previous authorization, there is hereby authorized to be appropriated the sum of $28,200,000 for prosecution of the plan of improvement for the control of Old and Atchafalaya Rivers and a navigation lock approved in the Act of September 3, 1954.

(e) In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $35,674,000 for prosecution of the plan of improvement in the Saint Francis River Basin approved in the Act of May 17, 1950.

(f) Subparagraph (g) under the title Lower Mississippi River, section 10, of the Act approved July 24, 1946, is hereby amended to read "Extension of the authorized headwater project for the Yazoo River and tributaries to include the drainage of runoff waters from the watershed of McKinney Bayou and the providing of pumping capacity additional to that now existing for said waters in the proportion determined by the Chief of Engineers is authorized in the discretion of the Chief of Engineers, at an estimated cost of $800,000."

The project for flood protection and related purposes on Bayou Chevreuil, Louisiana, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 347, Eighty-fourth Congress, at an estimated cost of $547,000: *Provided*, That work already performed by local interests on this project, in accordance with the recommended plan as determined by the Chief of Engineers, may be credited to the cash contribution required of local interests.

The project for flood protection on Wolf River and tributaries, Tennessee, is hereby authorized substantially in accordance with the report of the Board of Engineers for Rivers and Harbors dated April 25, 1956, at an estimated cost of $1,932,000.

PURGATOIRE RIVER BASIN

The project for the Trinidad Dam on Purgatoire River, Colorado, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 325, Eighty-fourth Congress, at an estimated cost of $16,628,000.

WHITE RIVER BASIN

In addition to previous authorizations, there is hereby authorized the sum of $57,000,000 for the prosecution of the comprehensive plan for the White River Basin, approved in the Act of June 28, 1938, as amended, and supple-

mented by subsequent Acts of Congress, and such comprehensive plan is hereby modified to provide for the generation of power in conjunction with flood control at the Lone Rock Reservoir and the addition of Gilbert Reservoir for flood control, power generation, and other purposes as recommended by the District Engineer in House Document Numbered 499, Eighty-third Congress.

UPPER MISSISSIPPI RIVER BASIN

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $21,000,000 for the prosecution of the comprehensive plan for the Upper Mississippi River Basin, approved in the Act of June 28, 1938, as amended and supplemented by subsequent Acts of Congress.

The project for flood protection on Eau Galle River at Spring Valley, Wisconsin, is hereby authorized substantially in accordance with recommendations of the Chief of Engineers in Senate Document Numbered 52, Eighty-fourth Congress, at an estimated cost of $6,690,000.

The project for flood protection on the Mississippi River at Winona, Minnesota, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 324, Eighty-fourth Congress, at an estimated cost of $1,620,000.

The project for flood protection on the Minnesota River at Mankato and North Mankato, Minnesota, is hereby authorized substantially as recommended by the Chief of Engineers in House Document Numbered 437, Eighty-fourth Congress, at an estimated cost of $1,870,000.

The Shelbyville Reservoir project on the Kaskaskia River, Illinois, is hereby authorized substantially as recommended by the Division Engineer in his report at an estimated cost of $23,000,000.

The project for flood protection on the Root River at Rushford, Minnesota, is hereby authorized substantially as recommended by the Chief of Engineers, in House Document Numbered 431, Eighty-fourth Congress, at an estimated cost of $796,000.

GREAT LAKES BASIN

The project for flood protection on the Bad River at Mellen and Odanah, Wisconsin, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 165, Eighty-fourth Congress, at an estimated cost of $917,000.

The project for flood protection on the Kalamazoo River at Kalamazoo, Michigan, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in Senate Document Numbered 53, Eighty-fourth Congress, at an estimated cost of $5,358,000.

The project for flood protection on the Saginaw River, Michigan, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 346, Eighty-fourth Congress, at an estimated cost of $16,085,000.

MISSOURI RIVER BASIN

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $200,000,000 for the prosecution of the comprehensive plan for the Missouri River Basin, approved in the Act of June 28, 1938, as amended and supplemented by subsequent Acts of Congress.

The project for flood protection on the Floyd River, Iowa, is hereby authorized substantially as recommended by the Chief of Engineers in House Document Numbered 417, Eighty-fourth Congress, at an estimated cost of $8,060,000.

The project for flood protection on the Black Vermillion River at Frankfort, Kansas, is hereby authorized substantially as recommended by the Chief of Engineers in House Document Numbered 409, Eighty-fourth Congress, at an estimated cost of $850,000.

The project for flood control on Salt Creek and tributaries, Nebraska, is hereby authorized substantially as recommended by the Chief of Engineers in House Document Numbered 396, Eighty-fourth Congress, at an estimated cost of $13,314,000.

OHIO RIVER BASIN

The project for the Saline River and tributaries, Illinois, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers

in his report published as House Document Numbered 316, Eighty-fourth Congress, at an estimated cost of $5,970,000: *Provided*, That in lieu of the cash contribution recommended by the Chief of Engineers, local interests contribute in cash, the sum of $233,000, in addition to other items of local cooperation.

The project for flood protection on Brush Creek at Princeton, West Virginia, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in Senate Document Numbered 122, Eighty-fourth Congress, at an estimated cost of $917,000.

The project for flood protection on Lake Chautauqua and Chadakoin River at Jamestown, New York, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in Senate Document Numbered 103, Eighty-fourth Congress, at an estimated cost of $4,796,000.

The project for flood protection on the West Branch of the Mahoning River, Ohio, is hereby authorized substantially in accordance with plans to be prepared by the Chief of Engineers at an estimated cost of $14,000,000.

The project for flood protection on Sandy Lick Creek at Brookville, Pennsylvania, is hereby authorized substantially in accordance with plans to be prepared by the Chief of Engineers at an estimated cost of $1,000,000.

SACRAMENTO RIVER BASIN

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $17,000,000 for the prosecution of the comprehensive plan approved in the Act of December 22, 1944, as amended and supplemented by subsequent Acts of Congress.

The project for flood protection on the Sacramento River from Chico Landing to Red Bluff, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 272, Eighty-fourth Congress, at an estimated cost of $1,560,000.

The project for flood protection in the Eel River in the Sandy Prairie Region, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers, at an estimated cost of $670,000.

WEBER RIVER BASIN, UTAH

The project for flood protection on the Weber River and tributaries, Utah, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 158, Eighty-fourth Congress, at an estimated cost of $520,000.

SAN JOAQUIN RIVER BASIN

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $13,000,000 for the prosecution of the comprehensive plan approved in the Act of December 22, 1944, as amended and supplemented by subsequent Acts of Congress.

The project for the Buchanan Reservoir on the Chowchilla River, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 367, Eighty-first Congress, at an estimated cost of $10,900,000: *Provided*, That, prior to starting construction, asasurances of repayment arrangements for the cost allocated to irrigation be obtained by the Secretary of the Interior.

The project for the Hidden Reservoir on the Fresno River, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 367, Eighty-first Congress, at an estimated cost of $12,500,000: *Provided*, That prior to starting construction assurances of repayment arrangements for the cost allocated to irrigation be obtained by the Secretary of the Interior.

KAWEAH AND TULE RIVER BASINS

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $28,000,000 for the prosecution of the comprehensive plan approved in the Act of December 22, 1944, as amended and supplemented by subsequent Acts of Congress.

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LOS ANGELES RIVER BASIN

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $44,000,000, for the prosecution of the comprehensive plan approved in the Act of June 28, 1938, as amended and supplemented by subsequent Acts of Congress.

SANTA ANA RIVER BASIN

In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $3,000,000, for the prosecution of the comprehensive plan approved in the Act of June 28, 1938, as amended and supplemented by subsequent Acts of Congress.

COLUMBIA RIVER BASIN

In addition to previous authorizations there is hereby authorized to be appropriated the sum of $112,000,000 for the prosecution of the projects and plans for the Columbia River Basin, including the Willamette River Basin, authorized by the Flood Control Act of June 28, 1938, and subsequent Acts of Congress, including the Flood Control Acts of May 17, 1950, and September 3, 1954.

SAMMAMISH RIVER BASIN

The project for flood protection and related purposes on the Sammamish River, Washington, is hereby authorized substantially as recommended by the Chief of Engineers in House Document Numbered 157, Eighty-fourth Congress, at an estimated cost of $825,000.

TERRITORY OF ALASKA

The project for flood protection on Chena River at Fairbanks, Alaska, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 137, Eighty-fourth Congress, at an estimated cost of $9,727,000.

SEC. 204. That, in recognition of the flood-control accomplishments of the multiple-purpose Oroville Dam and Reservoir, proposed to be constructed on the Feather River by the State of California, there is hereby authorized to be appropriated a monetary contribution toward the construction cost of such dam and reservoir and the amount of such contribution shall be determined by the Secretary of the Army in cooperation with the State of California, subject to a finding by the Secretary of the Army of economic justification for allocation of the amount to flood control, such funds to be administered by the Secretary of the Army: *Provided*, That prior to making the monetary contribution or any part thereof, the Department of the Army and the State of California shall have entered into an agreement providing for operation of the Oroville Dam in such manner as will produce the flood-control benefits upon which the monetary contribution is predicated, and such operation of the dam for flood control shall be in accordance with rules prescribed by the Secretary of the Army pursuant to the provisions of section 7 of the Flood Control Act of 1944 (58 Stat. 890): *Provided further*, That the funds appropriated under this authorization shall be administered by the Secretary of the Army in a manner which shall assure that the annual Federal contribution during the project construction period does not exceed the percentage of the annual expenditure for the Oroville Dam and Reservoir which the total flood-control contribution bears to the total cost of the dam and reservoir: *And provided further*, That unless construction of the Oroville Dam and Reservoir is undertaken within two years from the date of enactment of this Act, the authority for the monetary contribution contained herein shall expire.

SEC. 205. In prosecuting plans and projects for navigation, flood control, and allied purposes heretofore or hereafter authorized, storage may be included in any reservoir project to be constructed by the Corps of Engineers without reimbursement to increase low flows downstream to the extent warranted at that time, or anticipated to be warranted at that time, or anticipated to be warranted during the economic life of the project, by widespread, general, and nonexclusive benefits from such increases in low flow.

SEC. 206. The Secretary of the Army is hereby authorized and directed to cause surveys for flood control and allied purposes, including channel and major drainage improvements, and floods aggravated by or due to wind or tidal effects, to be

made under the direction of the Chief of Engineers, in drainage areas of the United States and its Territorial possessions, which include the following-named localities: *Provided*, That after the regular or formal reports made on any survey are submitted to Congress, no supplemental or additional report or estimate shall be made unless authorized by law except that the Secretary of the Army may cause a review of any examination or survey to be made and a report thereon submitted to Congress if such review is required by the national defense or by changed physical or economic conditions: *Provided further*, That the Government shall not be deemed to have entered upon any project for the improvement of any waterway or harbor mentioned in this title until the project for the proposed work shall have been adopted by law:

Hackensack River, New York and New Jersey, including drainage and reclamation of lands.

Mills Creek, Florida.

Streams in Seminole County, Florida, draining into the Saint Johns River.

Streams in Brevard County, Florida, draining Indian River and adjacent coastal areas including Merritt Island.

Lake Pontchartrain, Louisiana, in the interest of protecting Salt Bayou Road.

San Felipi Creek, Texas, at and in the vicinity of Del Rio, Texas.

El Paso, El Paso County, Texas.

Rio Grande and tributaries, at and in the vicinity of Fort Hancock, Hudspeth County, Texas.

Little River and Cayuga Creek, at and in the vicinity of Cayuga Island, Niagara County, New York.

Sacramento River Basin, California, with reference to cost allocation studies for Oroville Dam.

Pescadero Creek, California.

San Gregorio Creek and tributaries, California.

Redwood Creek, San Mateo, California.

Streams at and in the vicinity of South San Francisco, California.

Streams at and in the vicinity of Burlingame, California.

Kellogg and Marsh Creeks, Contra Costa County, California.

Eastkoot Creek, Stinson Beach area, Marin County, California.

Rodeo Creek, tributary of San Pablo Bay, Contra Costa County, California.

Pinole Creek, tributary of San Pablo Bay, Contra Costa County, California.

Rogue River, Oregon, in the interest of flood control, navigation, hydroelectric power, irrigation, and allied purposes.

SEC. 207. In addition to previous authorizations, there is hereby authorized to be appropriated the sum of $200,000,000 for the prosecution of the comprehensive plan adopted by section 9 (a) of the Act approved December 22, 1944 (Public Numbered 534, Seventy-eighth Congress), for continuing the works in the Missouri River Basin to be undertaken under said plans by the Secretary of the Interior.

SEC. 208. That for preliminary examinations and surveys authorized in previous river and harbor and flood control Acts, the Secretary of the Army is hereby directed to cause investigations and reports for flood control and allied purposes, to be prepared under the supervision of the Chief of Engineers in the form of survey reports, and that preliminary examination reports shall no longer be required to be prepared.

SEC. 209. Title II may be cited as the "Flood Control Act of 1956".

Passed the House of Representatives July 23, 1956.

Attest:

RALPH R. ROBERTS, *Clerk.*

Senator KERR. General Itschner?

General ITSCHNER. Senator, I have a prepared opening statement. Would you like to just insert it in the record?

Senator KERR. How long would it take you to read it?

General ITSCHNER. Ten minutes.

Senator KERR. I would like you to read it.

Congressman Miller has just come in from Nebraska, and we have just called the Chief of Engineers, and would you come here and sit with us while he makes his statement and then give us yours? Sit right there.

Mr. MILLER. Thank you very much.

Senator BUSH. Mr. Chairman, before he starts, I would like to discuss at the appropriate time proposed amendments to this bill.

Senator KERR. To which bill?

Senator BUSH. House bill 12080, the bill before us.

Senator KERR. Fine. They are with reference to the projects for Connecticut?

Senator BUSH. That is right. We have about 5 witnesses here, Mr. Chairman, which will take a combined total of 15 minutes at your pleasure.

Senator KERR. That is fine. We will sure hear them.

STATEMENT OF LT. GEN. S. D. STURGIS, JR., CHIEF OF ENGINEERS, AS PRESENTED BY MAJ. GEN. EMERSON C. ITSCHNER, ASSISTANT CHIEF OF ENGINEERS FOR CIVIL WORKS, UNITED STATES CORPS OF ENGINEERS

General ITSCHNER. Mr. Chairman and members of the committee, 2 years have elapsed since the passage of the last omnibus river and harbor and flood-control bill on September 3, 1954. During the intervening time, there has been much activity in connection with Federal civil works—in continuation of civil-works construction and studies and in the field of water-resources policy. I feel, therefore, it would be appropriate to give you a brief résumé of the civil-works program which Congress has authorized upon the recommendations of this committee; of the developing policies, problems, and events which have affected it; and of the scope of the new proposals which are before you for consideration.

THE CIVIL-WORKS PROGRAM

The present civil-works program under the jurisdiction of the Corps of Engineers is the cumulative result of specific authorizations by the Congress over many years. This program, as you know, includes improvements for navigation, flood control, and related water-resource development. It also involves shore-protection projects. The total active program, consisting of 3,200 projects, has a total estimated cost of $16.4 billion.

Federal appropriations for this work through fiscal year 1956 have totaled $6.9 billion, leaving $9.5 billion as the amount required to complete the present authorized program. The Congress has shown a continued interest in the prosecution of these improvements and in most years since the close of World War II appropriations have exceeded half a billion dollars annually. For fiscal year 1957 the total civil-works appropriations, including maintenance and operation of improvements, was $635 million, of which $504 million was for construction. During the Korean emergency and the years immediately following, only a few projects were started each year, but I am pleased to report that this policy has been changed and that the appropriations for fiscal years 1956 and 1957 included the initiation or resumption of 225 projects.

STATUS OF NAVIGATION AND SHORE-PROTECTION PROGRAM

Improvements of rivers and harbors for navigation constitute the oldest segment of the civil-works program and are still of major importance. The present active program includes 2,300 projects of this kind, with an estimated cost of $4.3 billion. Appropriations through fiscal year 1956 for this phase of the program have totaled $1.9 billion, leaving $2.4 billion as the amount required to complete authorized navigation work. If the multiple-purpose projects which serve navigation purposes are added, the total estimated cost of the active authorized navigation program becomes $6.9 billion, of which $2.9 billion has been appropriated through the fiscal year 1956.

The navigation program includes three major types of improvement: Seacoast harbors, Great Lakes channels and harbors, and inland and intracoastal waterways. Appropriations to date have been divided roughly as follows: Inland and intracoastal waterways, 50 percent; seacoast harbor improvements, 40 percent; and the Great Lakes, 10 percent.

Under the authorized program, our coastal harbors have been improved to meet the demands of modern deep-draft oceangoing commerce so that channel depths of 35 feet prevail in harbors on the Atlantic seaboard and gulf coast and range up to 45-foot depths in New York Harbor.

On the west coast, harbor and channel depths ranging from 30 to 40 feet are generally available. There are over 20 coastal ports which handle 10 million tons or more of cargo annually.

Senator KERR. Each?

General ITSCHNER. Yes, sir.

For major coastal harbors, the cost of the Federal improvements, including maintenance and operation, averages less than 4 cents per ton of cargo handled.

The improved harbors and connecting channels of the Great Lakes constitute the most important waterways system in this country and perhaps in the world. This value will be greatly augmented by the St. Lawrence seaway which is now under construction. These harbors and improved channels provide the basic transportation system for the industrial Midwest. At the present time, depths of 21 feet are controlling generally for the Great Lakes harbors and connecting channels. Eleven harbors on the Great Lakes now handle 10 million tons or more annually of the commodities that move over this waterway and in 1954, a total of 91.2 billion ton-miles of cargo was handled on this system. The cost of Federal improvements of major Great Lakes ports averages about 1½ cents per ton of cargo handled.

The inland and intracoastal waterways which have been improved by the Federal Government have a total length of over 28,000 miles. Much of this length, however, represents shallow-draft channels improved many years ago which are no longer of material importance to commercial navigation.

About 80 percent of modern waterborne commerce is carried on 12 waterways with an aggregate length of 5,800 miles. These include such waterways as the Gulf Intracoastal and the lower Mississippi River with its extension up the Ohio to the Pittsburgh area and up the Illinois River to the Great Lakes system at Chicago.

In 1954, traffic on our inland and intracoastal waterway system totaled 82.5 billion ton-miles. These waterways and the improved barges, towboats, and other equipment of modern waterway operators, carry commodities of all kinds ranging from crude petroleum to finished automobiles. One modern tank barge will carry almost as much as 100 tankcars normally used in rail traffic. Our estimates show that savings in transportation costs which are passed along to the public have been very great and that the system of inland and intracoastal waterways is returning in such benefits about $3 for every Federal dollar expended.

Senator KERR. In what period of time?

General ITSCHNER. A 50-year period. Anything beyond 50 years is an added benefit.

Senator KERR. In addition to that?

General ITSCHNER. Yes, sir.

The program for beach erosion prevention and shore protection is relatively new in comparison to the navigation program. Federal interest began in 1930 when the Beach Erosion Board was established and authorized to make studies of this nature. The scope of the studies was expanded by subsequent legislation and, finally in 1946, the Federal Government undertook to participate in the construction of the actual works for the protection of shores. Since the program is in its infancy there are only 45 projects authorized by Congress and only 11 of these have had construction appropriations. The total Federal share in the cost is about $15.7 million, of which about $3.7 million has been appropriated to date, leaving a balance of $12 million to complete.

Now the status of the flood-control program——

Senator KERR. Before you leave the navigation, do you have access, the information showing the increase of traffic or of tonnage on the railways of our country during the same period of time that you refer to here in your report on the increase of traffic on the waterways?

General ITSCHNER. We have access to that information, sir, and we have it in our office, but I don't have it with me.

Senator KERR. Would it be easily obtainable by you for the record?

General ITSCHNER. Yes, sir, very easily obtainable.

Senator KERR. To show the traffic in tonnage handled beginning with 1940, through 1955?

General ITSCHNER. Yes, sir, I could get that information very easily, sir. I shall do so for insertion in the record.

(The information requested is as follows:)

Railway revenue-to-miles, including electric railways, express and mail, classes I, II, and III, 1940–54

	Ton-miles (billions)		*Ton-miles (billions)*
1940	379,201	1948	647,267
1941	481,756	1949	534,694
1942	645,422	1950	596,940
1943	734,829	1951	655,353
1944	746,912	1952	623,373
1945	690,809	1953	614,199
1946	602,069	1954	[1] 556,577
1947	664,523		

[1] Preliminary: Increase of 46.8 percent over 1940. Statistics for 1955 not available yet.
Source: Interstate Commerce Commission, Bureau of Transport Economics, Statement No. 568.

STATUS OF FLOOD-CONTROL PROGRAM

General ITSCHNER. The flood-control segment of the civil-works program dates from congressional authorization of the project for alluvial valley of the Mississippi River in 1928 and for the first general Flood Control Act of 1936 insofar as the country as a whole is concerned. Thus for the country as a whole the flood-control program is now only 20 years old. These 2 decades have witnessed 2 wars during which the civil-works activity, including flood control, was curtailed.

In this brief period, however, the flood-control program of the Corps of Engineers has grown to become one of the major elements of the Federal public-works activity.

The active flood-control program, including the major project for the lower Mississippi River, but excluding multiple-purpose improvements, involves over 760 projects with a total estimated cost of $6.3 billion. Of this amount, $2.5 billion have been appropriated by Congress, leaving a total of $3.8 billion required for completion. If the multiple-purpose projects which serve flood-control purposes are added, the estimated cost of the total authorized flood-control program becomes $9.5 billion, of which a total of $4 billion has been appropriated through fiscal year 1956.

Senator KERR. Using these figures we find some duplication in view of the fact there was a figure given for navigation including multiple-purpose projects.

General ITSCHNER. Actually, sir, there is no duplication, because those are different multiple-purpose projects. We took them for their predominant purpose, either flood control or navigation.

The accomplishments of the flood-control program have more than justified its cost. The projects in full or partial operation are preventing flood damages of one-half billion dollars a year and, in addition, producing additional benefits of one-quarter billion dollars a year. The total annual value of this program—three-quarters of a billion dollars a year—is being achieved at an annual cost of slightly more than $200 million.

The flood-control program is paying off at the rate of more than $3 for each $1 invested, and this does not take into account the values which cannot be measured in monetary terms, such as the saving in life, and the economic security of hundreds of urban communities and farming areas.

I might also add there parenthetically these figures are based upon a 50-year amortization period so any benefits accruing after 50 years—and they should be very substantial—would add to the benefits of each of these projects.

Senator KERR. Thank you, sir.

General ITSCHNER. Much is left to be done in the field of flood damage prevention. The potential flood losses in the United States on an average annual basis without flood-control works amount to $900 million a year. These are estimated losses for the main river and major tributary valleys and do not include flood losses in many small upstream tributaries. The half-billion dollar reduction in the $900 million annual loss, presently being achieved by the operating flood-control program still leaves a balance of $400 million annual loss.

STATUS OF THE MULTIPLE-PURPOSE PROGRAM

Multiple-purpose projects are those which have two or more functions. They may be combinations of flood control, navigation, hydroelectric power development, or any related purposes.

The active multiple-purpose program consists of 64 projects which have a total cost of $5.8 billion. The total appropriation to date is $2.5 billion, leaving $3.3 billion to complete.

Hydroelectric power is an important product of this program. The present installed capacity of all multiple-purpose projects of the corps is more than 4 million kilowatts. The capacity when the projects under construction are completed will be 7.6 million kilowatts.

THE SURVEY PROGRAM

In recent years, appropriations for the general navigation survey program have been extremely low in comparison with the backlog of surveys. No funds were appropriated for fiscal year 1952.

In the fiscal years 1953 to 1955 the appropriations were made at a rate which would have required about 15 years to complete all reports assigned by Congress. The increased appropriation for fiscal years 1956 and 1957 have been at a rate which would require about 5 years to complete the backlog if no new surveys are authorized. However, the loss of engineers during the lean years experienced in this field cannot easily be made up. The survey program should be maintained on an even keel if efficiency is to be achieved.

THE STATUS OF THE OMNIBUS ACT OF 1956

As you know, Mr. Chairman, the Omnibus River and Harbor and Flood Control Act of 1956, was favorably reported by the House committee on July 7, 1956. The bill as reported contained monetary authorizations as follows:

Rivers and harbors: 29 projects and 4 special items that are not specific projects	$75,334,000
Beach erosion: 7 projects	5,270,000
Flood control: 37 projects	470,967,000
Increased basin authorizations for 12 basins	592,300,000
Missouri River Basin for Department of the Interior	200,000,000
Total	1,343,871,000

At the present time, your committee has scheduled approximately 20 projects for consideration, having a total estimated cost of approximately $600 million. This amount, plus the cost of the projects already in the bill amounts to $1,943 million.

In closing I want to express my thanks to this committee for its help in achieving the harmony which has characterized our relationship, and, above all, in working toward the goal of the best development of America's water resources.

Thank you, Mr. Chairman.

Senator KERR. Thank you very much, General Itschner, for your statement. And, on behalf of the committee, I want to thank you for your splendid cooperation and assistance with and to this committee in our deliberation on these flood-control and navigation projects.

Do you have anything further to say?

General ITSCHNER. No, sir.

Senator KERR. Any questions?

Senator Cotton?

Senator COTTON. General, last March, when you appeared before this committee, the record shows you stated at the present rate of appropriation and assuming no new projects were authorized, it would take approximately 25 years to complete the presently active flood-control program, including those multiple-purpose projects with flood control as a primary function.

Now, this new bill, with its new projects, is it contemplated that these new projects are going to displace some of the long list of authorized projects that are not even started yet?

General ITSCHNER. It is very likely, sir, that some of the new authorizations would take priority over some of the old ones.

Senator COTTON. Why?

General ITSCHNER. Because of greater urgency, sir.

Senator COTTON. I don't want to take too much time, but would you give me an example of a project, the type of project that has immediate urgency so that if this bill is enacted, it will supplant and come ahead of some of these projects that have been waiting all this time?

General ITSCHNER. Yes, sir, there are a number of rather urgent projects in the present omnibus bill. One of them would be——

Senator COTTON. Connected with the floods?

General ITSCHNER. Connecticut Basin projects certainly would have a very high priority. Now, as an example of some of those that are already authorized, that are not very urgent, I would mention that there are a fairly large group of projects that are not desired by local people at this time, due to changes in local conditions, such as development in the area, that makes a project which at the time of authorization appeared quite desirable not economically justified now.

Senator COTTON. Just one more question if the chairman will permit. I can quite understand why new flood conditions and new dangers arise in certain areas might make it highly necessary that new authorizations be given to supplant this long list, but is it also true of multiple-purpose and navigation projects?

General ITSCHNER. Yes, sir; it is, because of increased developments in specific areas, that indicate an urgent need for some of these new projects.

Senator COTTON. In other words, as I said when we passed the St. Lawrence seaway bill, which I voted against, that if you get married, you have to be prepared to entertain all your wife's relations; and if we passed that project we have to be prepared to pick up the check for the deepening of many, many harbors around the Great Lakes. That is what you have in mind when you say that new conditions in settting aside these long-authorized projects and having new navigation projects?

General ITSCHNER. That is one of the projects which I had in mind. Another condition exists along the Texas coast where we have had tremendous development in recent years and, obviously, that creates new demands for projects.

Senator COTTON. But there is tremendous backlog for projects authorized by this committee coming in to the House and Congress

for years which haven't been touched, and they will be retarded somewhat by these?

General ITSCHNER. They may be. We would examine the entire list of authorized projects when formulating our budget for the following year and we would select for new starts those projects which appear to us to be most meritorious and most required at the time, regardless of the length they have been authorized.

Senator COTTON. Thank you, Mr. Chairman.

Senator KERR. That would be a matter, however, which Congress would have to control. If they want to step up the program, they could.

I would like to call the committee's attention to an article in this morning's Wall Street Journal, River Bank Boom, being the leading headline of the item. It is on page 1:

CHEAP TRANSPORTATION AND POWER DRAW MORE PLANTS TO WATERWAYS; GLIDDEN LOOKS FOR BIG RISE IN BARGE TRAFFIC; SLEEPY CALVERT CITY, KY., AWAKES; COMPETITION CUTS RAIL RATES

There's an industrial boom surging along the banks of the Nation's navigable waterways.

Last year, manufacturers and public utilities picked waterside sites for a hefty $6.5 billion worth of new plants—more than 3 times the 1954 total. In the first 6 months of this year they stepped up this pace, earmarking $3.6 billion for construction along waterways.

What's back of the river-bank boom? Industry's postwar urge to decentralize has sent companies scurrying around the United States looking for new plant sites. Two assets are common to all waterway sites: Low-cost transportation and an ample water supply.

I want the reporter to put into the record at this point the rest of this very illuminating article. It points up a statement often made by the distinguished Senator from Pennsylvania, Mr. Martin, about the surging increase in traffic in and on all of our transportation facilities.

Railroads, highways, waterways, pipelines, airways, none of which are adequate to meeting growing needs for the handling of the increased transportation and all of them insofar as the development of our basic economy and industries are concerned, are as important in my judgment as these inland waterways.

(The balance of the statement is as follows:)

These advantages have grown even more alluring as rail and truck freight have risen and water shortages have gripped many parts of the Nation. Some water sites, too, offer sources of cheap hydroelectric power.

The rush to the rivers is a repetition of early United States history. In the 18th and early 19th centuries towns and industries huddled near rivers, a major source of transportation, power, and even communication. With the spread of railroads and highways, the Nation's inland waterways—28,996 miles of navigable rivers and canals—began to dwindle in importance. But their comeback now is well underway.

COMPETITION CUTS RATES

Mammoth 20,000-ton barge tows moving up and down the waterways can haul as much freight as 400 rail cars or 1,000 trucks at rates as low as one-third the cost by other means of transportation. The competition of barge lines means that rail and truck rates in river towns are also lower than in cities away from the water.

The industrial growth along the waterways has brought 213-percent increase in barge traffic on the inland waterways since 1946, and volume this year is running well ahead of the record 87.5 billion ton-miles of freight hauled in 1955. The inland waterways' share of the Nation's freight loads rose to 7.3 percent

in 1954 from 2.6 percent in 1943, excluding the share carried by Great Lakes shipping.

The waterways boom has led to a rapid growth in barge lines, too. The current inland waterways fleet includes 18,100 towboats and barges, up 1,043 from 1950, and most inland shipyards are back-ordered into 1958.

WATER TRAFFIC RISES

"We have so much barge traffic going in and out of here that the home office calls me admiral," grins husky, hearty Anthony L. Ascik, who runs Pittsburgh Metallurgical Co.'s big new ferroalloy plant at Calvert City, Ky. Half of all raw materials used at the plant and half of its products move by barge, he reports, and water traffic at the firm's docks is now more than 11 times what it was 3 years ago.

Center of the inland waterways boom has been the busy Ohio River and its 8 navigable tributaries, which have gained $9.3 billion worth of new industry since 1950.

Other booming waterway areas: A stretch of less than 10 miles along the Mississippi between New Orleans and Baton Rouge has acquired $850 million worth of new plants since World War II.

More than $500 million worth of industry has settled along the upper Mississippi between Cairo, Ill., and St. Paul, Minn., in the postwar period. The Gulf Intracoastal Waterway and connecting rivers and canals have gained a lion's share of the $1.2 billion chemical industry and $1.1 billion oil-refining industry on the gulf coast of Texas.

A few of the big new waterway plants built or announced in the past 5 years: Olin Mathieson Chemical Corp's. $90 million aluminum plant at Clarington, Ohio; Kaiser Aluminum & Chemical Corp.'s $220 million worth of aluminum plants at Ravenswood, W. Va., and $60 million alumina plant at Baton Rouge, La.; American Cyanamid Co.'s $55 million chemical plant at New Orleans; Texas Co.'s $44.5 million refinery at Lockport, Ill.; Lone Star Cement Co.'s $35 million plant at Lake Charles, La.; Bowater Paper Co.'s $52 million newspaper mill at Charleston, Tenn.; Crane Co.'s $25 million titanium plant at Chattanooga, Tenn.; Allied Chemical & Dye Corp.'s $22 million chemical plant at Moundsville, W. Va., and $24 million nitrogen plant at Omaha, Nebr., and Dow Chemical Co.'s $20 million plant at Baton Rouge, La.

EXPANSION ON WATER

Dwight P. Joyce, chairman and president of Glidden Co., says, "We intend to keep most of our future expansion on the water, because of the great potential there.

"We make extensive use of water transportation now for bringing in raw materials and shipping out our chemical products, and we believe that barge traffic will increase greatly in coming years."

D. A. Rhodes, vice president and general manager of Kaiser Aluminum & Chemical, notes: "In the integrated production of aluminum, economic water transportation is essential to provide a direct flow of raw material between major production units." Kaiser will barge alumina from plants at Baton Rouge and Gramercy, La., up the Mississippi and Ohio Rivers to the $220 million worth of reduction and fabricating plants it is building at Ravenswood, W. Va., he reports.

"In the chemical industry, particularly in the manufacture of heavy industrial chemicals, the primary advantage of a waterside site is the lower transportation cost afforded by moving both incoming raw material and outgoing finished products in large bulk shipments by barge," says F. L. Linton, comptroller of Allied Chemical & Dye, which has 45 waterway plants and is building 2 more.

Many companies located on the waterways operate their own barge fleets. Last year Wheeling Steel Corp. hauled 2.25 million net tons of coal for its steel mills in its barges, up from 1.5 million in 1954, and tonnage in the first 6 months of 1956 was 100,000 tons ahead of 1955.

Among other companies operating barge fleets are: Crucible Steel Corporation of America, Jones & Laughlin Steel Corp., Lone Star Cement Corp., Marquette Cement Corp., Shell Oil Co., Socony Mobil Oil Co., Inc., Standard Oil Co. (Indiana), Standard Oil Co. (New Jersey), Standard Oil Co. (Ohio), and United States Steel Corp.

WATER USE RISES

In these days of water shortages, the steady flow past waterside plants is another weighty advantage for the waterways. Last year industrial firms used 60 billion gallons of water a day, 6 times their daily intake in 1900, and are expected to need 115 billion gallons a day by 1975. Public utilities in 1955 used 59.8 billion gallons daily, more than 11 times what they used each day in 1900.

An idea of the water available for industry in the rivers: Daily flow of the Mississippi past New Orleans is 300 billion gallons a day.

When the advantage of cheap transportation and ample water are added to other important factors, the result is an almost irresistible lure to many companies. The Ohio Valley adds low-cost, coal-generated power and proximity to eastern markets to its water assets, and the New Orleans-Baton Rouge area links up ocean transportation, low-cost natural gas, generated power and large sources of petroleum, sulfur, and other raw materials with its water advantages.

Industrialization has brought big changes for both people and towns along the waterways. Consider Kentucky's Calvert City, until a few years ago a sleepy, unincorporated hamlet of 300. Today, it bustles with more than $77 million worth of new industrial plants, employing 1,500 workers, and is planning for a population of 10,000 by 1965.

HELP FROM A DAM

At Calvert City, the big extra factor was provided by the Federal Government with construction of nearby Kentucky Dam, part of the TVA system. To get the dam, and its assets of low-cost power, flood protection for industrial sites, locks for barges, and recreation facilities for workers, however, took a long, hard fight by Luther Draffen, country storekeeper at Calvert City, and other western Kentucky leaders.

Mr. Draffin began his battle for the dam and industrial development of Calvert City in the years after World War I when farmers in the area lost the market for the dark tobacco they had exported to Germany, Italy, and France, and 5,000 farm people migrated north to work in the industries of Detroit, Chicago, and Akron.

After the dam was constructed, he and Charlie Hall, a young Paducah merchant, began preparing brochures, writing letters, and taking industrial site hunters on tours of the area. Finally, in 1948, they hit the jackpot.

First came Pennsylvania Salt Manufacturing Co., which has now invested $20 million in 6 chemical plants, employing 250. Next came Pittsburgh Metallurgical, which has expanded its original 3 ferroalloy furnaces to $7.5 million, 10-furnace plant, employing 640, and is now building 3 more units including the largest electric ferroalloy furnace in the world.

NATIONAL CARBIDE MOVES IN

In 1951, National Carbide division of Air Reduction Co., moved in with a giant $18 million plant, employing 400. Two years later, B. F. Goodrich Co.'s chemical division moved in with a $13.5 million plant, employing 165, to combine acetylene from National Carbide and hydrochloric acid, sulfuric acid, and caustic soda from Pennsalt to make vinyl chloride and acrylonitrile.

Last year, General Aniline & Film Corp. put up a $7 million plant with 108 employees, to take National Carbide's acetylene and hydrogen from Pennsalt to produce drugs and artificial blood plasma.

This year, Air Reduction has completed a $5 million chemical plant to use its own acetylene in making vinyl acetate monomer, and another $1 million plant to turn out oxygen and rare gases. American Aniline & Extract Co. also put up a $1 million polyvinyl alcohol plant using chemicals from the new Air Reduction plant.

Nor has this chain reaction of industrial growth ended. Three major chemical companies have acquired more than 1,200 acres of land in Calvert City for future industrial sites.

In the case of Calvert City, industrial development got a big push from hydroelectric power from Kentucky Dam, but the resurgence of coal as a source of electric power has been an even more important part of the waterway boom.

Even Calvert City gets large amounts of power now from TVA's steam generating plants—National Carbide alone uses 120,000 kilowatt-hours, compared to Kentucky Dam's capacity of 160,000 kilowatt-hours.

John W. Evers, president of Commonwealth Edison Co., Chicago, told the convention of the National Coal Association last month, "We are barging as much coal as possible." The utility burns 11 million tons of coal a year, and Mr. Evers notes that rail rates for hauling coal are up 15 cents a ton in the last 3 years, while the cost of coal has dropped 3 cents a ton.

INDUSTRIAL DISTRICTS

To get in on the waterway boom, many cities are developing industrial districts on the water. Memphis has lured 23 companies to its $3 million 980-acre President's Island project since 1952, and is now starting development of another 6,800 acres on the mainland across from the island district.

The Federal Government has appropriated $551,000 for preliminary engineering work on a project that would open up the 3,100 acre Columbia Bottoms north of St. Louis for a proposed industrial district to be operated by the bi-State agency, Joint Illinois-Missouri Authority. Other river cities with ambitious industrial development projects: Pittsburgh, Minneapolis, St. Paul, Baton Rouge, New Orleans, Dubuque, Iowa, and Syracuse, N. Y. (New York State Barge Canal).

Barge line executives point up how all this rising waterway activity is causing an upsurge in their industry.

Capt. A. C. Ingersoll, Jr., president of Federal Barge Lines, Inc., says he expects 1956 volume to exceed the record 3,191,811 tons hauled last year, up 21 percent over 1954 volume. "May was the best month in our history," he reports.

"I would be surprised if the growth of the barge industry is less than 4 percent per year for the next 10 years," he adds, "and it may grow as fast as 15 percent a year." Federal added a new towboat and 25 new barges last year, recently launched a big modern towboat and has 25 barges on order.

Senator MARTIN. Mr. Chairman, may I ask a question. General, you made a statement a moment ago that in some cases, local interests are now in opposition. You don't mean to permit that to cut out a project where the local interest might interfere with the overall. Now, I am using as an example, the northern part of Pennsylvania, on the Allegheny River, where that purpose there, flood control, is for the benefit of Pennsylvania, Ohio, West Virginia, and all the States south.

Now, it wouldn't be the plan because there is opposition there to eliminate that flood control dam?

General ITSCHNER. I had in mind, sir, more that there was a lack of local interest. Some of these authorizations require a local contribution, either in the form of real estate or cash, and there have been occasions when the local people lost interest to the extent that they were not willing or able to provide the required local contribution.

Senator MARTIN. What I am getting at, Mr. Chairman, is that we must take into consideration the overall picture. I hate to have my real estate taken for an improved highway, but for the general good of the community, the right of eminent domain steps in and they take my property. Now, we will probably, I hate to interfere with local things, but sometimes it is necessary to damage one locality, just take my State, we have removed whole towns in order to build flood-project dams, to take care of the overall picture. It isn't the intention to deviate from that plan, is it?

General ITSCHNER. No, sir, it is not our intention to deviate from that concept.

Senator MARTIN. Mr. Chairman, I would like to ask another question. What is the policy of the Engineer Corps, which has done a magnificent job in our country; as I understand, it will still be the theory that local people ought to make a contribution to these projects where it is an improvement in the harbor and things of that kind?

General ITSCHNER. Yes, sir, it is the policy to require contribution in the form of lands, easements and rights-of-way, for local flood-control projects as required by law. This has been a requirement since the Flood Control Act of 1936. In other cases, there are certain types of projects which require local contributions in the form of cash in return for certain types of benefits that they receive.

Senator MARTIN. I think, Mr. Chairman, I think the general is entirely right. Local communities can get rights-of-way and things of that kind, much more economically than we can secure them at the State and national level. I am not going to take any more time, but what the distinguished chairman said about inland transportation, I want to use, and I think you are very familiar with it, General; you take the Monongehela River which rises up in West Virginia. There is greater transportation over Monongahela River than there is through the Panama Canal. Now we turned down, we did not do very much there as Senator Kilgore and I thought should have been done, because those dams have to be improved.

Now I would like to just ask one more question. You know there is a good many projects that we have authorized and the United States and local authorities have put a lot of money in that; we now find that they will probably be inadequate. Harbors will have to be deepened because of the ships, particularly from Europe, they require deeper harbors. Now, I am not going to ask you to commit yourself, but I want to just bring that up, Mr. Chairman, it is all in the hands of Congress. We are going to have to, I think this committee more and more every year, take a lot of these things into consideration and we ought to also look for the general good of the Nation, not just the particular locality.

The CHAIRMAN. Thank you, Senator.

Senator MARTIN. The general has given us some fine information this morning.

The CHAIRMAN. Are there other questions?

Senator NEUBERGER. I would like to ask a few questions. General, what is the overall goal of acre-feet of flood control of the Columbia River Basin?

General ITSCHNER. We would like to get a gross of 27 million acre-feet of storage capacity for flood control and other purposes, so that we would have a net available usable flood-control storage of 21 million acre-feet.

Senator NEUBERGER. In other words, the overall goal still remains at what it was in the 308 report, the overall goal still remains 27 million acre-feet total available flood-control storage?

General ITSCHNER. Yes, sir, of which 21 million acre-feet would be effective at The Dalles, which would control the flood of record, the 1894 flood, to 800,000 cubic feet per second at The Dalles.

Senator NEUBERGER. And unless you get that 27 million acre-feet, you feel you will not have effective control of another recurrence of the flood of record?

General ITSCHNER. No, sir; we would not have effective control of the flood of record.

Senator NEUBERGER. Thank you very much. I want to ask one other question, if I can, to go from the flood-control projects in the moun-

tains down to the seacoast. What is the present status of the proposed Yaquina Bay project on the eastern seacoast?

General ITSCHNER. The Yaquina Bay project has been heard by the Board of Engineers for Rivers and Harbors. The Board of Engineers for Rivers and Harbors approved the project, although it had been reported upon unfavorably by the district and division engineers, and, at the present time, it is being considered by other Federal agencies and the Governor of the State of Oregon.

Senator NEUBERGER. Inasmuch as the Board has approved the project, it could be an appropriate project for inclusion in an omnibus rivers and harbors bill, might it not be?

General ITSCHNER. Other similar projects have been considered in the current omnibus bill, and also in the 1954 bill—a few of them are in the House version of the bill, as it has been reported out by the committee.

Senator NEUBERGER. Thank you so much, Mr. Chairman.

Senator KERR. We are happy to have with us this morning a very distinguished member of the House Interior and Insular Affairs Committee. He is a ranking member on that committee—Congressman A. L. Miller, from Nebraska.

STATEMENT OF HON. A. L. MILLER, CONGRESSMAN FROM THE FOURTH DISTRICT, STATE OF NEBRASKA

Mr. MILLER. Thank you very much, Senator Kerr. Members of the committee, I am here in the interest of the Gering Valley flood-control project, which I think the engineers also have a word to say about.

I appreciate your courtesy in permitting me to appear before you at this busy time, Senator, in regard to this project, and as you listen to my statement, it is about 5 or 6 minutes long, may I pass these pictures along, which are the July 2 recent flood damage in the area. They may then be made a part of the file, if it please the committee.

Senator KERR. Very good.

Mr. MILLER. I hoped that the record could have been made earlier in this session of the Congress when the demands upon your time were not so pressing but the necessary reports were not completed by the Department of the Army and the Bureau of the Budget until only recently, and it is only because of the extreme immediate need for this project that it is being presented for your approval at this time.

The project in its present form has been approved by the Bureau of the Budget.

Gering Valley lies in the extreme west-central tip of the State of Nebraska, in the watershed of the North Platte River, draining an area of approximately 86 square miles. The land is highly productive and fertile agricultural land, and nearly every tillable acre has been put to use in the production of sugar beets, beans, alfalfa, potatoes, small grains, and corn.

A large majority of the farms in the Gering Valley are served by irrigation facilities constructed by locally sponsored districts or units of the North Platte Valley project, which is one of the first projects constructed under the Reclamation Act of 1902. Protection of these works and the 54,846 acres of land served thereby is one of the prime objectives of the Gering Valley flood-control project.

In the past 25 years, there have been 18 severe floods in this valley, with average annual damages amounting to nearly $100,000. The most disastrous flood of record occurred in 1947, when losses amounted to nearly $1.5 million. Just 2 weeks ago another flash flood damaged the Gering Valley to the extent of nearly $280,000 and any sudden heavy rains in the future will certainly bring more destruction to the lands, crops, and facilities in the area.

In 1948 the Public Works Committee of the Senate by resolution authorized the Board of Engineers for Rivers and Harbors to undertake a review of the flood situation, and to devise a plan for controlling the run-off waters in the Gering Valley. These studies were completed and a report was submitted to the Chief of Engineers, Department of the Army, on September 13, 1954, which suggested construction of four small detention dams, levees, and other related works that would cost $1,104,500. This plan is now being recommended to the Congress. Of this amount, $1,056,000 would be the Federal Government's investment, and $48,500 would be the investment of local interests. In addition, the local interests would be required to furnish the land and easements necessary, and to perform certain other complementary work that would cost an additional $300,000, and maintain the works. I am pleased to say that the local people have performed a substantial part of their obligation, and stand ready and willing to complete their bargain. Were they financially able to do so, they would undertake all of the work required to protect their property and interests; but they have already invested more than $6 million over the years in just the irrigation and drainage works that serve their community, and substantial amounts for repairs and maintenance so they do not feel able to finance this additional expenditure without major assistance from the Federal Government.

The Corps of Engineers report shows that the benefit to cost ratio of this project is 2 to 1, or 2.18.

So that the committee may better appreciate the nature of the damages that have occurred by reason of ditch-bank erosion and structural failures, I submitted these pictures to you that are now before you, and I would like to submit also, Mr. Chairman, for the record, Flood Control in Gering Valley, development of the land as of August 1955, one booklet, and What They Say About the Gering Valley Flood Control, for your record, if I may do that.

Senator KERR. That would be very fine. It will be received for the file.

Mr. MILLER. Thank you. So the committee can appreciate the local support behind the project, one of the booklets shows the committee the local support.

It is my sincere hope that this extremely necessary and feasible flood-control project can be included in the Omnibus Flood Control Act this year.

I might say I spoke to the chairman of the House committee and they were anxious to include it, except they had no report from the Bureau of the Budget, and without that report they were hesitant about placing it in the bill. Just within the last 2 weeks we have received a favorable report from the Bureau of the Budget. Your colleague on this committee, Senator Hruska, is very familiar with the project, and I am sure I should have yielded to him to make my

statement. I think that he wanted to make it and I apologize to the Senator. I know that he has some statement that he would want to make upon the hearing of flood control in the Gering flood-control project.

Senator KERR. Thank you very much, Congressman Miller. Are there any questions?

Senator NEUBERGER. I wanted to defer to the other Senators.

What is the total costs of this project again, Congressman Miller?

Mr. MILLER. The total engineer's report is $1,056,000, of which the local interests, their contribution is $48,500, outright contributions, and then they get the right-of-way, and so forth.

Senator NEUBERGER. One thing I didn't understand in your presentation, is this in the House bill?

Mr. MILLER. No. We didn't have the budget report in time to include it. Mr. Davis told me just the other day if they would get it in over the Senate side, they would support it on the House side. They had a limited number of projects they wanted to place in the bill and this and that, and the report from the engineers.

Senator NEUBERGER. Thank you very much.

Senator KERR. Thank you very much, Congressman. Senator Hruska?

Senator HRUSKA. Just this, Mr. Chairman: I wanted to say first of all, I am personally happy that Congressman Miller did make the original presentation. No apology on his part is necessary. This flood-control project is near his home. He lives with it more closely than I do. The site is familiar to me, I have toured the area, I have talked to the members of the board of the local unit there and would like, Mr. Chairman, to submit for the record a statement which I have prepared on behalf of this project, together with a statement prepared by my colleague, Senator Curtis.

I won't take the time to read it. Time presses us. I am sure there won't be anything added by a reading of it. I would like to reiterate the urging of Congressman Miller that this be included in the omnibus bill.

Senator KERR. Very good. Statements will be placed in the record.

(The statement is as follows:)

STATEMENT OF HON. ROMAN L. HRUSKA, UNITED STATES SENATOR FROM THE STATE OF NEBRASKA

STATEMENT OF SENATOR HRUSKA RE GERING VALLEY FLOOD-CONTROL PROJECT

Mr. Chairman, recently the Secretary of the Army submitted to the committee the report of the Chief of Engineers recommending that the general comprehensive plan for flood control in the Missouri River Basin be modified to include a projcet for local flood protection in the Gering Valley, Nebr. The estimated cost to the United States for the construction of this project is $1,056,000. Non-Federal expenditures include $48,500 for right-of-way cost which would be borne by local interests. Other protective and conservation work valued at about $300,000 would be borne by local interests.

Gering Valley is located in Scotts Bluff County, Nebr., in the western extremity of the Nebraska Panhandle. It is a comparatively level, intensely cultivated arear, ringed on three sides by a U-shaped range of bluffs. The valley is drained by an artificial wasteway and drainage canal, known as the Gering drain, constructed during the period of 1922 to 1925 by the Bureau of Reclamation in

cooperation with the Gering Irrigation District as part of the Fort Laramie Canal system of the North Platte project.

Since 1931, 18 floods have occurred in Gering Valley. These have caused millions of dollars of losses and damages in farm income, destruction of farmland, injured crops, ruined roads and bridges, damages to irrigation facilities, and reduction of income to businesses and industry dependent upon agriculture. The whole valley is becoming an area of washed-out channels, deep side gullies, eroded fields, and silt-covered lands, which will destroy the income value of the entire farming area.

After the disastrous flood of 1947, whihc flooded 4,200 acres of land and caused an estimated damage of nearly $1,500,000, this committee ordered an investigation by the Corps of Engineers. After several years of study, the Corps of Engineers recommended that the general comprehensive plan for flood control in the Missouri River Basin be modified to include a project for local flood protection in the Gering Valley. This project was recommended by the Governor of Nebraska in 1954, and was endorsed by the Mississippi Valley Association, Nebraska Reclamation Association, and the Nebraska Irrigation Association.

Local interests were informed of the recommendations and were invited to submit additional information to the Board of Engineers for Rivers and Harbors. Numerous communications were received, all endorsing the proposed plan, and local interests have indicated their willingness and ability to meet the stipulated requirements of local cooperation.

With the exception of 2 years, there have been floods in the Gering Valley every year since 1947. Following each of them, extensive repairs, costing large sums of money, have been paid for locally. In addition, heavy obligations have been incurred to overcome the damages caused by these floods throughout the year. However, the finances of the farmers and other people in this area do not permit full-scale replacement. So erosion and other natural consequences of floods in this valley are rapidly getting worse and worse with each ensuing flood.

A few days ago the secretary of the Gering-Fort Laramie Irrigation District wired me that another flood occurred in the Gering Valley July 2 of this year, causing an estimated damage of over $200,000 to drains and structures, and a crop damage of $50,000.

Mr. Chairman, I believe this project is highly meritorious and should be included in the omnibus flood-control bill.

STATEMENT OF HON. CARL T. CURTIS, UNITED STATES SENATOR FROM THE STATE OF NEBRASKA

(The statement is as follows:)

STATEMENT OF SENATOR CARL T. CURTIS RELATIVE TO THE GERING VALLEY FLOOD-CONTROL PROJECT

Mr. Chairman, I appreciate the opportunity to appear here and state that I am in favor of the inclusion in the flood-control bill of the project for the Gering Valley in Nebraska. This is part of the Missouri River system and this project is a modification of the Missouri River program.

This valley is one of Nebraska's very important agricultural areas. It is an irrigated section. That area has suffered from floods throughout the years and particularly since the disastrous flood of 1947. It is a needed project. It is my understanding that it is approved by not only the Army engineers, but the Bureau of the Budget, the agencies to which it is referred, and the States involved.

Mr. Chairman, this is not a large project. I understand that the construction costs are $1,056,000. The local interests will provide the right-of-way at a cost of $48,500, and other protective and conservation work running into almost one-third of a million dollars will be borne by local interests.

Mr. Chairman, the floods in this area are a recurring matter. They come practically every year. I am convinced that if this very modest project can be authorized and constructed that it will be in the public interest, in fact, it would be a serious mistake to not provide this needed flood protection. I hope it can be incorporated in the pending bill.

Senator KERR. I am going to suggest that we go ahead with the hearings on these projects from witnesses other than the engineers, with the thought in mind that at some point in the hearing we could hear the

engineers in a continuous discussion of the various projects, rather than to have them make it piecemeal, and then the reporter could put into the record the remarks of the engineers pertinent to each project at the space in the record where other evidence with reference to each project is contained.

Is there objection to that procedure?

(There was no response.)

Are there other statements relative to the Platte River, Mitchell, and Gering Valleys project?

(Synopsis of the above project is as follows:)

GERING AND MITCHELL VALLEYS, NEBR.

(Not printed)

Location.—Gering and Mitchell Valleys are located in western extremity of the Nebraska Panhandle near Scottsbluff, Nebr.

Report authorized by.—Senate Public Works Committee resolution, October 8, 1948.

Existing project.—There are no existing Corps of Engineers flood-control projects. Gering drain in Gering Valley was constructed in 1922–25 by the Bureau of Reclamation in cooperation with the Gering Irrigation District as a part of Fort Laramie Canal system to provide an outlet to the river for irrigation waste water and for surface runoff. Local interests in cooperation with State and Federal agencies in 1954 completed installation of two small detention basins and other improvements to control erosion and reduce storm runoff in Brown's Canyon of Mitchell Valley.

Plan of recommended improvement.—Four small detention reservoirs in canyons in Gering Valley, enlargement of the lower reaches of the Gering drain with adjacent low levees, grade-stabilization structures in the drain, reconstruction of the Ostenberg chute, and alteration of 1 railroad bridge and 2 country road bridges.

Estimated cost

	Federal	Non-Federal	Total
Project document (March 1953)	$1,056,000	$48,500	$1,104,500
Current (January 1956)	1,214,000	56,000	1,270,000

Local cooperation.—Provide without cost to Federal Government all lands, easements, and rights-of-way required for all work, including dams and reservoirs; maintain and operate all work after completion; accomplish new highway bridge construction and alterations except raising, which would be done at Federal expense, and all relocations required. Also, undertake complementary program consisting of lining approximately 2 miles of Fort Laramie irrigation canal with asphaltic membrane, improvement of 5 miles of lateral canals with steel and concrete pipe, improvement of existing irrigation and cropping practices, and establishment of willow growth in drains to prevent erosion damage.

Project economics

	Project document	Current
Annual charges	$42,500	$48,800
Annual benefits:		
Reduction of flood damages	68,900	72,100
Reduction of erosion damages	13,800	14,500
Reduction of scour damages, irrigation structures	2,900	3,000
Total	85,600	89,600
Benefit-cost ratio	2.01	1.84

Senator KERR. That takes us back to the agenda before us. If General Itschner would come before us and give us the benefit of his views on these projects of which we have had testimony.

General ITSCHNER. Mr. Chairman, the first of these projects is the Gering-Mitchell project. Mr. Joseph R. Brennan.

Senator KERR. Gentlemen, I am going to suggest in view of the fact that where other projects have no outside witnesses listed, that we have the Senators who are interested notified that we will hear them.

Senator HRUSKA. It would be agreeable with me, Mr. Chairman.

Senator KERR. That is Senators Sparkman and Hill, and Senator Hickenlooper.

Again, your name?

Mr. BRENNAN. Joseph R. Brennan.

STATEMENT OF JOSEPH R. BRENNAN, CORPS OF ENGINEERS

Mr. BRENNAN. Mr. Chairman and members of the committee, there are two matters before the committee in connection with the flood-protection project for the Gering and Mitchell Valleys in Nebraska.

The first is the matter of the survey report which is a normal Corps of Engineers survey report similar to those on other projects which are before the committee.

The second is a bill which would authorize the improvements recommended by the Chief of Engineers in the survey report.

I will describe the project first and then make a few remarks about the bill, which is agreed to by the Department of the Army and the Bureau of the Budget with some minor technical amendments or suggested changes.

The location of this project is shown on this vicinity map, in the west central part of Nebraska, and the drainage area is a tributary to the North Platte River, which flows in an easterly direction. The town of Scottsbluff is across the North Platte River from the drainage basin under consideration.

The Gering drainage basin is shown on the lower half of the map and Mitchell Valley, somewhat smaller, shown in the upper half.

The population of Scottsbluff is 12,800, and of the small town of Gering, which is located in the lower part of the basin, 3,800. About half the total population, or 7,500, is rural.

The drainage arises from the mountains to the south of the valley, flows in a very rapid fashion out of the canyon mouths, and across the flat, very intensely cultivated agricultural areas, following generally the lines of these drains as shown on the map, and eventually flowing into the North Platte River [indicating].

The flood problem arises from the high intensity of the rains and the flashy nature of the floods. The rains may occur and the floods happen in periods of as little as 1 hour up to a total of 6 hours. The various plans of improvement have been investigated by the Corps of Engineers and the one found most feasible is the combination of four small detention basins shown at these points marked "A" on the map, and channel improvements.

The channel improvements would be along the canals and would include concrete drop structures and improvement of certain of the channels downstream as far as the mouth. There are no flood-control

improvements there now and these would constitute entirely new flood-control improvements.

The flood damages have been rather considerable in the past. The maximum flood of record occurred in June 1947 and caused a total of almost $1½ million; a smaller flood in 1948 caused a damage of about one-quarter of a million dollars.

The total cost of the plan as given in the report is $1,104,500. Those prices are based on March 1953 price levels, and they have been brought up to date for purpose of this testimony, so that the present total cost is $1,270,000, of which $1,214,000 would be Federal and $56,000 would be local cost for lands, rights-of-way, and various locations.

Senator KERR. Now, that is the local participation would consist only of rights-of-way and easements and contributions of that nature.

Mr. BRENNAN. Yes, sir. The entire local contribution is in the form of lands and rights-of-way and easements.

Senator KERR. You heard the testimony this morning of the witnesses from Connecticut. Are the local costs contemplated in the statement you have just made similar to those that were referred to by the witnesses from Connecticut?

Mr. BRENNAN. Yes, sir; it so happens that in this project, because of the small nature of the reservoirs, and the fact that the protection they provide is entirely local, the Corps of Engineers has recommended that the lands and rights-of-way for the reservoirs be a part of the local contribution.

Senator KERR. Well, to what degree is that a departure from the traditional policy of the Corps of Engineers with reference to flood-control projects?

Mr. BRENNAN. Mr. Chairman, it is a relatively infrequent instance where the Chief of Engineers has recommended that lands and rights-of-way be borne by local interests in reservoir areas. In my memory, there were 2 projects in the 1954 act—2 small reservoirs. There is one small reservoir in the present omnibus bill, as reported out by the House committee, which requires local interests to contribute lands and easements for reservoirs.

Senator KERR. Well, it it a correct statement of fact to say that, in principle, the recommendations for local contributions in this project would be similar to local contributions suggested for the Connecticut projects?

Mr. BRENNAN. Yes, sir; the principles in both cases would apply equally to this project as to the Connecticut.

Senator KERR. The fact that the cost in the Connecticut projects would be so much greater is not by reason of difference in principles, but by reason of the difference in value of the area to be contributed?

Mr. BRENNAN. That is correct, sir; the value of the lands to be taken for these reservoirs is relatively low.

Senator KERR. But the principle is the same?

Mr. BRENNAN. The principle is the same.

Senator BUSH. What is the approximate capacity of these four dams each, how many acre-feet are they?

Mr. BRENNAN. Quite small, sir; all under 5,000 acre-feet. They range from 1,400 acre-feet up to about 3,500 acre-feet.

Senator BUSH. What is the larger one?

Mr. BRENNAN. About 3,500; all very small.

Senator KERR. As far as the chairman is concerned, he is just as much against the principles and precedent.

Mr. BRENNAN. Mr. Chairman, may I correct my statement I made about the capacity? That 3,500 is closer to the total. The exact figures, 1 is 830 acre-feet, 1 is 790 acre-feet, 1 is 747 acre-feet, and 1 is 1,470 acre-feet. That is the largest.

Senator KERR. All right, Mr. Brennan; is there further statement?

Mr. BRENNAN. Yes, sir; just a statement as to the economics and a brief statement on the bill, sir. The annual charges revised are $48,800, the average annual benefits are $89,600, which gives a benefit-cost ratio of 1.84. The report was submitted to the State of Nebraska, to the Department of the Interior, and Department of Agriculture. The State of Nebraska concurred, and pointed out that there was complete agreement with local people in this project.

The Department of Interior had several minor technical points which we in our answer explained could be taken up during the design stage.

The Department of Agriculture stated that more local participation, in their opinion, should be required, and that the four small reservoirs should not be undertaken without appropriate prior planning and installation of soil-conservation measures on land above them.

Senator KERR. May I ask, at this point, if the building of these reservoirs would in any way interfere with supplemental soil conservation programing and planning?

Mr. BRENNAN. No, sir; in our opinion there would be no interference whatsoever.

Senator KERR. And if there were any relationship between the two, the building of them would make a contribution of sum total of the program rather than an interference?

Mr. BRENNAN. That is correct, Mr. Chairman. And those points generally are those which we felt justified construction of the plan at this time.

Senator HRUSKA. Mr. Brennan, how far is it from the structure that is at the top part of the map there, of those four, over to the divide on the west of it?

Mr. BRENNAN. That, sir, is approximately 2 miles. It is 16 miles from this divide here [indicating] down to the North Platte River. So it is about 2 miles to the divide.

Senator HRUSKA. Second structure from the top, the distance is even less to the divide?

Mr. BRENNAN. That is even closer to the divide.

Senator HRUSKA. What I am driving at, the amount of farmland which would be susceptible to treatment is relatively insignificant; is it not?

Mr. BRENNAN. That is correct, sir.

Senator KERR. Further questions?

Mr. BRENNAN. Mr. Chairman, would you like me to make a statement about the bill itself, which has several minor suggestions made by the Department of Army with respect to clarification and revision?

Senator KERR. If there are any suggestions in principle, we would be glad to have them. If they are technical details, I would think we can take care of that after we have acted on the bill.

Would you agree with that, Senator Hruska?

Senator HRUSKA. I think that would be true as to any of these.

Senator KERR. Sure.

Senator Sparkman has just come in. Senator Hill is coming in in a moment and shortly we will hear from them.

The Grand River project, as Lansing, Mich., proposed by Senator McNamara. The Senator was unable to be here, but Mr. Robert Perin, his administrative assistant is here and do you have a statement for the Senator on this project?

Mr. PERIN. Yes, sir; I have a brief statement.

Senator KERR. I understand Congressman Hayworth from Michigan is here. We will hear from the Congressman first.

STATEMENT OF HON. DON HAYWORTH, CONGRESSMAN FROM THE SIXTH DISTRICT, STATE OF MICHIGAN

Mr. HAYWORTH. Thank you, Mr. Chairman; gentlemen of the committee, I am here on exactly the same kind of mission as was Congressman Miller. On July 15, 1947, just 9 years ago, Senator Vandenberg introduced a resolution calling for the engineers to investigate the reliability of flood control on the Grand River. I remember distinctly that flood, which had occurred a few months before that. It was one of the spectacular things that happened in Michigan while I have been there, since 1937. People came from miles and miles around to see the great extent of the damage that was being done in the high waters.

Since that time, we have had never so serious a flood, but we have had floods that are doing a lot of damage, and just a few weeks ago I received from the city council of Lansing a statement that they would like to have me bring forcibly to the attention of my committee in the House the desirability of pushing this work. However, even though Senator Vandenberg introduced this, 9 years ago, nothing has actually come to Congress on the resolution until just a few days ago, and the final clearance from the Bureau of the Budget and from the Army engineers came after the omnibus bill had gone through the Rules Committee in the House. Therefore, I would like to have you consider, if you will, the insertion of this on the Senate side, so that it can get into legislation in this Congress.

I know we will be, as a Congress, fulfilling the desires of the people of our State if we can get this ready to go into building in the course of the next few years.

Senator KERR. Thank you very much, Congressman Hayworth. Are there questions?

(No response.)

Senator KERR. If not, we will hear from Mr. Perin.

STATEMENT OF HON. PAT McNAMARA, UNITED STATES SENATOR FROM THE STATE OF MICHIGAN, AS PRESENTED BY MR. PERIN

Mr. PERIN. Yes, sir. Senator McNamara was unavoidably detained in another committee meeting and has asked me to give this brief statement.

As Congressman Hayworth has pointed out, the flooding of the Grand River and its tributaries in the Lansing, Mich., area has been an annual problem to the area for a good many years.

Probably the worst occasion was 1947, when the flooding of the Grand River and the Red Cedar River covered a total of 1,590 acres in the area, with damage to industrial, commercial and residential property estimated at $1,139,000. During this 1947 flood, some 2,500 persons were evacuated from the area. They could not return for several weeks.

While that was a very severe flood, annual damage caused by flooding is estimated at $555,000.

Because of the recurrent nature of this flooding, the project contained in the report of the Chief of Engineers, dated May 14, 1956, is a very worthwhile one. It should effectively curb the flooding and be of lasting benefit to the area.

That is it.

Senator KERR. Thank you very much, Mr. Perin. Are there other witnesses in reference to the Grand River flood-control program at Lansing, Mich.?

(No response.)

We will include in the record at this point a statement by Senator Potter on this project.

(The statement referred to is as follows:)

STATEMENT BY SENATOR CHARLES E. POTTER

I respectfully urge that the committee include in H. R. 12080, the omnibus rivers and harbors flood control bill, authorization of the Grand River project at Lansing, Mich.

Grand River, in southwest Michigan, has a watershed of 5,572 square miles. The river flows northerly to Lansing, thence northwesterly and westerly to Lake Michigan. At Lansing, in the upper portion of the basin, it is joined by Red Cedar River, one of its larger tributaries, which has a drainage area of 470 square miles. Floods on these two streams are responsible for the flood control problem in the Lansing area, where there are no existing Federal flood control works. Lansing and East Lansing had populations of 92,129 and 20,325, respectively, in 1950.

The Grand River flood plain is intensively used by industrial, commercial and residential interests. The Corps of Engineers reports that along this reach, and downstream for about 5 miles beyond the city limits, the April 1947 flood covered 550 acres and caused losses to urban development estimated at $355,600 based on 1954 price levels. Probable average annual losses in this reach are estimated at $170,000.

Along the lower part of Red Cedar River floods damage important commercial, manufacturing, and residential developments including many buildings of Michigan State College. The April 1947 flood covered, in this area, 1,040 acres and caused losses to urban developments estimated at $783,700. Average annual losses in this same reach are estimated at $385,000, according to the Corps of Engineers. During the 1947 flood, about 2,500 people had to be evacuated from the flooded area, many not returning to their homes for several weeks.

This project has been recommended by the Board of Engineers for Rivers and Harbors and has a benefit-cost ratio of 1.26. The development of this project will be a matter of good business practice for our Government, aside from the fact that it is urgently and critically required for safeguarding the lives, health, and property of the people in the area.

I strongly urge the committee to act promptly and favorably in order that this project will be authorized during this session of Congress.

CHARLES E. POTTER, *United States Senator.*

GRAND RIVER, MICH., LANSING AND VICINITY

(Document not yet printed)

Location.—The Grand River is located in the southern part of the Lower Peninsula of Michigan and has a total length of about 220 miles from the headwaters to its mouth at Grand Haven on Lake Michigan. Lansing is located at mile 154.

Report authorized by.—Senate Committee on Public Works, resolution adopted July 15, 1947.

Existing project.—None.

Plan of recommended improvement.—Provides for about 6 miles of channel improvement of the Grand, about 5 miles of channel improvement of Red Cedar River, a tributary of Grand River, and about 6 miles of cutoff channel around the city of Lansing. Control works would be provided at the ends of the cutoff channel.

Estimated cost

	Federal	Non-Federal	Total
Project document (October 1955)	$9,097,000	$2,869,000	$11,966,000
Current (January 1956)	9,825,000	3,098,000	12,923,000

Local cooperation.—Usual minimum requirements and in addition prevent encroachments, construct new highway bridges, make all changes to utilities, streets and bridge approaches, maintain and operate diversion dam, and make a cash contribution equal to 2.9 percent of the Federal construction cost (presently estimated at $293,000).

Project economics

	Project document	Current
Annual charges	$459,440	$496,010
Annual benefits:		
Elimination of damages	535,500	578,300
Including land use	45,370	49,000
Total	580,870	627,300
Benefit-cost ratio	1.27	1.27

Comments of the Bureau of the Budget.—Not received.

Senator KERR. Next we will hear the Corps of Engineers on Grand River at Lansing, Mich.

STATEMENT OF HOWARD MULLANEY, UNITED STATES CORPS OF ENGINEERS

Mr. MULLANEY. My name is Howard Mullaney, sir.

This survey of the Grand River at Lansing, Mich., was submitted to the Congress by the Chief of Engineers on June 8, 1956. It is to be printed as Senate Document 132 of the 84th Congress.

Lansing, Mich., is located in south central Michigan, about 80 miles northwest of Detroit. It is in the upper Grand River Basin. The Grand River flows generally west from Lansing to Lake Michigan, at Grand Haven. Total drainage area of Grand River Basin is 5,572 square miles, and the drainage area at Lansing is 1,230 square miles. The population of Lansing in 1950, was slightly over 92,000, that of East Lansing slightly over 20,000.

The Red Cedar River flows through Lansing, and joins the Grand River in downtown Lansing. Grand River flows in this direction [indicating].

Senator KERR. Flows east and comes back west?

Mr. MULLANEY. That is right, sir. That fact is taken advantage of in the development of the final improvement. The final improvement

proposed would involve an extensive channel improvement in Red Cedar River down to its junction with the Grand River, and down the Grand River to this point [indicating] and at the same time, this bend in the river would be taken advantage of to divert a large part of the flood waters through this diversion canal.

The plan is designed to handle a flood of 25,400 cubic feet per second which is somewhat greater than the maximum flood of record. During a flood of that magnitude, some 13,000 cubic feet per second, or slightly more than 50 percent, would be diverted around the city through this diversion canal; and the channel improvement would be sufficient to handle the balance of the flood without damage.

The project's estimated cost is $12,923,000, based on January 1956 prices, and the annual charges, including maintenance and operation, $496,010.

This project would eliminate 95 percent of the annual flood damages that are suffered in the communities of East Lansing and Lansing. These are estimated at $578,300. In addition, there would be a slight benefit to increased land values along the river which is estimated at $49,000. This makes a total annual benefit of $627,300, and gives a benefit-cost ratio of 1.27.

Local interests in connection with the project would be required to provide the usual items of cooperation, and in addition, to prescribe and enforce regulations to prevent encroachments on the improved channels, and to take care of certain highway bridge adjustments, street adjustments and utility adjustments in order to conform to the improved channels.

The total allocation of costs between Federal and non-Federal interests would be $9,825,000, Federal costs; $3,098,000 is the local cost. The latter figure includes a cash contribution of $293,000, and the balance is primarily for the bridge alterations that would be required.

The city of Lansing and Ingham County have adopted resolutions approving the project and have indicated their agreement to assume their proportionate share of the local cost.

The Corps of Engineers recommends the improvement subject to the items of cooperation that I have enumerated.

Thank you, sir.

Senator KERR. Very good, sir.

We will go to the Lake Erie flood-control program.

I would like placed in the record a letter signed by Robert T. Stevens, Secretary of the Army, addressed to the chairman of this committee pertaining to S. 1203, and also a letter addressed to the chairman of this committee by Donald R. Belcher, Assistant Director, Bureau of the Budget.

These, along with a copy of bill S. 1203, will be placed in the record at this time.

(The letters referred to above and the bill are as follows:)

[S. 1203, 84th Cong., 1st sess.]

A BILL To authorize construction of certain flood-control improvements on Lake Erie

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the projects for protection of areas along the western shores of Lake Erie, Michigan and Ohio, from floods caused by frequent windstorms and from increases in the lake level of Lake Erie, are hereby authorized substantially in accordance with the recommendations of the Chief

of Engineers in House Document Numbered 424, Eighty-third Congress, second session, at an estimated cost of $1,900,000, the work to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers.

SEC. 2. There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

DEPARTMENT OF THE ARMY,
June 24, 1955.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 1203, 84th Congress, a bill to authorize construction of certain flood-control improvements on Lake Erie.

The Department of the Army has no objection to the enactment of the above-mentioned bill.

The purpose of the bill is to authorize the construction of flood-protection works on the shore of Lake Erie at Detroit Beach and Lakewood-Luna Pier, Mich., and Point Place, Toledo, Ohio, in accordance with the recommendations of the Chief of Engineers contained in House Document No. 424, 83d Congress, including among other conditions of local cooperation provisions that local interests contribute in cash certain percentages of the first costs of construction, the total of the contributions being estimated in the document at $159,700.

You will note from House Document 424 that the Bureau of the Budget advised that there was no objection to the submission to Congress of the report contained in the document. However, your attention is invited to the view of Budget Bureau that it would be desirable for Congress to examine the extent, if any, to which the Federal Government would be justified in expanding its responsibilities for flood control to include inundation of property aggravated by or due to wind or tidal effects. That office stated that until Congress takes affirmative action to expand the policy enunciated in the Flood Control Act of 1936 to cover the type of projects recommended, authorization of the projects should not be considered to be in accord with the program of the President.

The total cost to the United States is estimated to be $1,894,000 for construction.

The Bureau of the Budget advises that there is no objection to the submission of this report, however that office maintains its previously stated views on the authorization of the specified improvements on Lake Erie and would not recommend enactment of S. 1203 in the absence of affirmative action by the Congress to expand the policy enunciated in the Flood Control Act of 1936.

Sincerely yours,

ROBERT T. STEVENS,
Secretary of the Army.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., May 31, 1955.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate, Washington, D. C.

MY DEAR MR. CHAIRMAN: This is in reply to your letter of February 26, 1955, requestng the views of the Bureau of the Budget on S. 1203, a bill to authorize construction of certain flood-control improvements on Lake Erie.

The purpose of the bill is to authorize the construction of flood-protection works on the shore of Lake Erie at Detroit Beach and Lakewood-Luna Pier, Mich., and Point Place, Toledo, Ohio, in accordance with the recommendations of the Chief of Engineers contained in House Document No. 424, 83d Congress, including among other conditions of local cooperation, provisions that local interests contribute in cash certain percentages of the first costs of construction, the total of the contributions being estimated in the document at $159,700.

In commenting upon the report of the Chief of Engineers contained in House Document No. 424, 83d Congress, the Bureau of the Budget expressed the belief

that it would be desirable for the Congress, before authorizing these projects, to examine the extent, if any, to which the Federal Government would be justified in expending its responsibilities for flood control to cover inundation of property aggravated by or due to wind or tidal effects. The Bureau concluded that until the Congress takes affirmative action to expand the policy enunciated in the Flood Control Act of 1936 to cover this type of project, authorizatoin of the projects should not be considered to be in accord with the program of the President.

The Bureau of the Budget maintains its previously stated views on the authorization of the specified improvements on Lake Erie. Accordingly, in the absence of affirmative action by the Congress to expand the policy as stated, we would not recommend enactment of S. 1203.

Sincerely yours,

DONALD R. BELCHER,
Assistant Director.

Senator KERR. Is this legislation sponsored by Senator McNamara?

Mr. PERIN. I have another statement.

Senator KERR. All right, you may make it.

STATEMENT OF HON. PAT McNAMARA, UNITED STATES SENATOR FROM THE STATE OF MICHIGAN, AS PRESENTED BY MR. PERIN

Mr. PERIN. I realize that S. 1203, which would provide for dikes and other protective devices along the Lake Erie coast at the juncture of Michigan and Ohio, is in a sense a step into a new field of Federal flood-control projects.

There is no question, I believe, that the project in itself is a good one. Flooding along the shore, caused by high lake levels and aggravated by wind and wave action, has long taken a toll in heavy property damage. The protective construction consisting of dikes and modification of drainage facilities outlined here would afford effective protection in the area.

The question, as raised by the Department of the Army and the Bureau of the Budget, is whether such a project constitutes an expansion of the Federal Government's accepted flood-control responsibility into the field of inundation of property due to tidal or wind effects.

There seems to be no clear congressional policy on this issue, and I am hopeful that such a policy will be established.

Certainly, the property and financial losses can be just as great, whether the damage is caused by actual flooding or by tidal or wind effects. Because the Great Lakes, and the problems created by the Great Lakes, are common to many States, it seems to me that the Congress could look favorably on such projects as contained in S. 1203.

Senator KERR. Thank you very much.

Senator BUSH. Mr. Chairman, does this apply to private property, or is this publicly owned property that is to be protected?

Mr. PERIN. I understand that most of it is private property, sir.

Senator KERR. Thank you, Mr. Perin.

Senator HRUSKA. Would that be true of Luna Pier; is that privately owned property?

Mr. PERIN. Luna Pier is—I am not too familiar with all the details, but I think that is a public and private operation.

(Pertinent data on this project is as follows:)

WATER LEVELS OF THE GREAT LAKES

DETROIT BEACH, MICH.; LAKEWOOD-LUNA PIER, MICH.; POINT PLACE, TOLEDO, OHIO

(H. Doc. 424, 83d Cong., 2d sess.)

Location.—Detroit Beach, Mich., Lakewood-Luna Pier, Mich., and Point Place, Ohio, are located at the west end of Lake Erie within 20 miles of each other. Detroit Beach is about 20 miles northerly of Toledo, Ohio. Lakewood-Luna Pier is about 10 miles northerly of Toledo, Ohio, and Point Place is the northerly suburb of Toledo, Ohio.

Report authorized by.—House Committee on Public Works resolution, adopted June 26, 1952.

Existing project.—None.

Plan of recommended improvement.—Provides for local protection consisting of dikes, steel sheet-pile flood walls and additions to existing concrete walls to supplement flood-protection structures erected by local interests. Interior drainage facilities are also recommended at the three locations. A navigation structure at Lakewood-Luna Pier, Mich., is also a part of the protective works for that location.

Estimated cost

DOCUMENT (SEPTEMBER 1952)

Locality	Federal	Non-Federal	Total
Detroit Beach	$508,400	$70,100	$578,500
Lakewood-Luna Pier	977,000	122,500	1,099,500
Point Place	339,600	52,000	391,600
Total	1,825,000	244,600	2,069,600

CURRENT (JANUARY 1956)

Detroit Beach	$586,200	$80,800	$667,000
Lakewood-Luna Pier	1,126,500	141,200	1,267,700
Point Place	391,600	59,900	451,500
Total	2,104,300	281,900	2,386,200

Local cooperation.—Usual minimum requirements; and construct or defray the cost of construction of the navigation structure and provide cash contributions as follows:

Detroit Beach, 8 percent, presently estimated at $50,900

Lakewood-Luna Pier, 7 percent, presently estimated at $84,700

Point Place, 11 percent, presently estimated at $48,400

Provided further, That improvement at any locality can be undertaken independently of the others whenever funds for that purpose are made available and the prescribed local cooperation has been provided.

Project economics

DOCUMENT

Locality	Annual charges	Annual benefits		Benefit-cost ratio
		Damages	Including land use	
Detroit Beach	$23,400	$28,700	$5,600	1.47
Lakewood-Luna Pier	43,700	46,700	7,400	1.24
Point Place	17,800	17,550	4,900	1.26
Total	84,900	92,950	17,900	1.31

CURRENT

Detroit Beach	$27,000	$41,400	$6,500	1.77
Lakewood-Luna Pier	50,500	67,300	8,500	1.50
Point Place	20,500	25,300	5,600	1.51
Total	98,000	134,000	20,600	1.58

Comments of the Bureau of the Budget.—No objection to submission of report to Congress but that, until Congress takes affirmative action to expand the policy enunciated in the Flood Control Act of 1936 to cover inundation of property aggravated by or due to wind or tidal effects, authorization of the project should not be considered in accord with the program of the President.

PROJECT FOR PROTECTION OF AREAS ALONG THE WESTERN SHORES OF LAKE ERIE, MICHIGAN AND OHIO

Senator KERR. I have here a letter from Senator Potter with reference to the project for protection of areas along the western shores of Lake Erie, Michigan and Ohio.

(The letter follows:)

STATEMENT BY SENATOR CHARLES E. POTTER

I respectfully urge that the committee include authorization in H. R. 12080, the omnibus rivers and harbors flood-control bill, of projects for protection of areas along the western shores of Lake Erie, Michigan and Ohio, from floods caused by frequent windstorms and from increases in the lake level of Lake Erie in accordance with the recommendations of the Chief of Engineers in House Document No. 424, 83d Congress.

Both these projects are on the west shore of Lake Erie, in Monroe County. They are located at communities known as Lakewood-Luna Pier and Detroit Beach-Woodland Beach, each of which comprises approximately 500 homes.

In March 1952, those communities were devastated by floods caused by the high level of Lake Erie and strong northeasterly winds. At that time, Lake Erie reached its highest level of record. Damage at both points exceeded a half-million dollars. Detroit Beach was devastated, by repeated floods, the worst of which occurred on the above date when the lake level reached a high of 576.97, destroying most existing seawalls, flooding residential areas which housed hundreds of citizens, and causing an estimated $400,000 in damage to this beach alone.

The reason for this record high level of Lake Erie is due to more than just natural causes. May I cite particularly the deepening of the St. Clair and Detroit River channels as at least one of those causative factors, thus placing at least a share of the responsibility on the Federal Government as the approving agency for the deepening of these channels.

The lake level now is higher than recorded on a corresponding date in 1952. On December 29, 1954, Detroit Beach was again subjected to a storm of a severity, but not duration, equal to that of March 1942, during which the level of Lake Erie rose to within 2 inches of that of March 1952. The structures along the beach line were weakened and battered beyond repair, three major breakthroughs developed, and that area is now largely at the mercy of the lake should any storm of even moderate intensity develop.

There are precedents for these projects. Such construction already has been authorized and completed in Lucas County, Ohio, along the shores of the same Lake, Lake Erie, known as Reno Beach. Howard Farms project was contained in the 1948 act. Another precedent was a project for flood control along Lake Ponchartrain in Jefferson Parish, La., in the 1946 act at a total cost of $1,230,000.

The flood of 1952, to which I referred earlier, caused extensive damage at Estral Beach, Mich., also in Monroe County. Instead of ducking the issue, the Corps of Engineers immediately allocated over $250,000 from its emergency fund to repair dikes already in existence.

After the flood in March 1952, the Public Works Committee of the House adopted a resolution on June 26, 1952, in which it instructed the Corps of Engineers to make a study of the high levels of the Great Lakes.

Included in that resolution and in other acts of Congress was this language: This study by the Corps of Engineers should be undertaken "with a view to determining the property damage resulting from changes in levels of the Great Lakes and the feasibility of measures to prevent the recurrence of damage." Similar language was used in the 1946 Flood Control Act and I believe that in adopting this language, the Congress was indicating its intent that flood-control measures could and should be undertaken in areas where the flood is caused or aggravated by wind or tidal effect, such as is the case with these projects.

The Corps of Army Engineers is of the opinion that the Monroe County, Mich., flood-control projects are authorized by existing law. They so testified before the Public Works Committees of the House and Senate, pointing out that Flood Control Acts from 1944 on authorized surveys of damage from wind or tidal effects.

The need for these projects is critical and urgent. Failure to provide them promptly is courting disaster for the people and the property in the areas, and is poor economy for our Government.

The Corps of Engineers has recommended both projects as meritorious and deserving of construction. Again may I urge the committee to take prompt and favorable action to that these projects will be authorized during this session of Congress.

Senator KERR. General Itschner, with your very patient indulgence, we would like to go to the Lake Erie flood-control project.

Major General ITSCHNER. We will have Mr. Brennan testify.

STATEMENT OF JOSEPH R. BRENNAN, CORPS OF ENGINEERS

Mr. BRENNAN. Mr. Chairman and members of the committee, while a map is being lowered, I would like to point out to you that in the 1954 flood-control hearings on the omnibus bill, both by the House Public Works Committee and by the Senate Public Works Committee, this project was discussed.

The project is a relatively simple one from an engineering standpoint, for the protection of lakefront property at three localities shown on this vicinity map at the west end of Lake Erie.

The first area is called Detroit Beach; the second, Lakewood-Luna Pier, and the third, Point Place. All of these localities would be protected by a combined steel and earth dike, extending in the case of Detroit Beach, from the Sandy Creek area, along the lakefront, and tying into high ground at the north end.

The length would be 3,520 feet, along the lakefront, and 6,050 feet along the flanks.

The Lakewood-Luna Pier dike would extend from La Pointe drain, again along the lakefront, for 5,600 feet tying in at this end [indicating]. The flank dikes would be 10,400 feet long. Point Place protection is 3,895 feet long and extends along the lakefront of the community, tying in to an existing wall.

The cost of these projects on a current price basis totals $2,386,200, of which $667,000 is for Detroit Beach; $1,267,700 for Lakewood-Luna Pier; and, finally, $451,500 for Point Place.

The local contribution would be $80,800 at Detroit Beach, $141,200 at Lakewood-Luna Pier, and $59,900 at Point Place.

The benefit-cost ratios for each project are substantially above unity. For Detroit Beach, 1.77; for Lakewood-Luna Pier, 1.50; and for Point Place, 1.51.

In commenting upon the report, the Bureau of the Budget took the position that this was an extension of the original 1936 Flood Control Act.

Senator KERR. May I interrupt there and ask if they took the position that this project would not be a proper right under the provisions of the Flood Control Act of 1936 and for it to be authorized would constitute an extension or enlargement of the specifications and coverage of the act, as written, and the practice of the Corps of Engineers in operating under the act?

Mr. BRENNAN. That is precisely correct, Mr. Chairman, with the possible exception that the corps had recommended a single project of this type on Lake Erie previously, but that is the only one on the Great Lakes that constituted departure from the 1936 act from the budget viewpoint.

The Bureau of the Budget, as you pointed out, felt that these projects would be a departure and should not be authorized unless the Congress considered the whole matter of tidal and lake-level flooding and set up a policy which would permit projects of this type to be built.

Senator HRUSKA. Mr. Brennan, are there two factors involved, not only the matter of general policy, but also the ownership, whether public or private, of the localities involved?

Mr. BRENNAN. The type of ownership, sir, I do not believe is a factor because the difference between public and private ownership applies to projects involving beach erosion, whereas these projects are all for the protection of residential and urban areas, which are both public and private property.

Senator HRUSKA. Well, in beach erosion, is that not limited at the present time to public property?

Mr. BRENNAN. Yes, sir. At the present time, the law does not permit Federal participation in the cost of protecting privately owned shores.

Senator HRUSKA. That is the basis of my question, as to whether or not ownership here might be affected?

Mr. BRENNAN. I believe not, sir, because it is pure flooding. This is not damage to the shore itself, but rather damage inland from the high lake levels and strong winds causing an actual overflow, which is shown by these black lines here [indicating] in each case. So, the project, I think, is quite a bit different from beach erosion.

Senator HRUSKA. I am not an engineer but I can see damage from water and water where it should not be and the same is true in beach erosion. It might be from different sources but the factor is water where it should not be doing damage to property. What is the difference?

Mr. BRENNAN. Well, in beach erosion, sir, the currents actually cause an erosion of the beach. Normally, the water does not rise up and overflow inland property but merely erodes the beach itself. This type of flooding here occurs because the entire lake level is raised in a cyclical fluctuation and then strong winds cause water to flow over the private property.

Now, on your point, the Bureau of the Budget did mention beach erosion in its comments and said that—

> This examination should include, among other things, consideration of the relationship between cost sharing on this type of work as against such programs as beach-erosion control.

Senator HRUSKA. Now, can you clear up for the record the matter of ownership as to each of these localities? A little earlier in these hearings, that question was asked and we were told we would get some information on it from you.

Mr. BRENNAN. The ownership, sir, is mostly private. For example, in Detroit Beach, which is the first one shown here, there are 1,000 residences affected in a total of 650 acres.

Senator HRUSKA. How many of those are directly on the waterfront?

Mr. BRENNAN. Relatively few, sir, in comparison to the whole area. The area extends about three-quarters of a mile in this direction [indicating] and about perhaps a third of a mile back.

Senator HRUSKA. When you say this direction, that is easterly and westerly?

Mr. BRENNAN. North and south, sir. This map is oriented so that north is to the right of the map.

In the case of Point Place, there is a total of 150 acres and a total population of 1,200. In the case of Luna Pier, which was questioned earlier, Luna Pier is actually the name of the community. On Lakewood-Luna Pier, it is 1,000 acres, and a population of 2,000. Those areas, of course, include streets and roads and other publicly owned parcels of land.

Senator HRUSKA. Is erosion a factor in this situation?

Mr. BRENNAN. No, sir, erosion is not a primary factor. There is some erosion. The problem of eroding beaches is not a particularly important one in any of these three localities.

Senator HRUSKA. So, in that respect, the residences which lie further back from the actual waterfront, would be affected approximately the same as those which are directly on the waterfront?

Mr. BRENNAN. That is correct, Senator.

Senator KERR. Now, you referred to an authorization passed by the Congress, similar to this, and I wonder if the reference was the 1948 authorization act and the project being for the protection of Reno Beach and adjacent area, Lucas, Ohio, from floods caused by frequent windstorms or from increases in the lake level of Lake Erie, as shown in the recommendation of the Chief of Engineers in House Document 554, 80th Congress?

Mr. BRENNAN. Yes, sir, that was the project I was referring to.

Senator KERR. That was authorized. Has that project been carried out? Has there ever been any appropriation to implement that authorization?

Mr. BRENNAN. I do not believe so, sir, but I am having that checked now.

(Information for the record:)

The total cost of the Reno Beach project is $566,000, of which only $4,000 has been appropriated to date for planning.

Senator KERR. Very good.

You may proceed now.

Senator HRUSKA. Before we leave that, I would be interested in greater detail from the Bureau of the Budget on this particular measure.

Senator KERR. I would think that would be appropriate if we get to the point of including it.

Senator HRUSKA. Very well.

Senator KERR. However, I think it might be well to ask the Bureau of the Budget if they would give us a specific communication on this, if they could do so by tomorrow.

Senator HRUSKA. By way of preliminary consideration if we desire personal testimony.

Senator KERR. Yes.

Congressman Meader from Michigan was here yesterday, or was due here yesterday afternoon. Not that he was scheduled to appear here, but he wants to make a statement with reference to the Detroit Beach-Lakewood Luna Pier project at Detroit.

STATEMENT OF HON. GEORGE MEADER, A REPRESENTATIVE IN CONGRESS FROM THE SECOND CONGRESSIONAL DISTRICT OF THE STATE OF MICHIGAN

Mr. MEADER. Thank you, Mr. Chairman. I want to express my appreciation to the committee for hearing me at this time, so that I can get away to a committee meeting of my own.

I have with me today Mr. John F. O'Leary, coordinator for the proposed seawall at Luna Pier, Mich., and Mr. T. E. Baxter, his assistant.

I am going to be very brief and say, if I may, that if the Chair will permit, I would like to reserve the right to extend and revise a statement in the record; and I would like permission for Mr. O'Leary to present a statement on behalf of the committee, if that is possible.

Senator KERR. Very well, how much time would it take, Mr. O'Leary?

Mr. O'LEARY. Approximately 5 minutes, Senator.

Mr. MEADER. This project is along the western shore of Lake Erie, between Detroit and Toledo.

Senator KERR. The committee has seen pictures of the maps for the project.

Mr. MEADER. That is good. All along there, Mr. Chairman, the water is very shallow, and when strong windstorms come from the east, as they did, for instance, in 1952, there are very severe floods.

As a result of that 1952 flood, the House Committee on Public Works ordered a study by the Corps of Engineers of the high-water levels of the Great Lakes and to recommend means for preventing damage.

In 1954 that report was filed, and the Corps of Engineers recommended only 3 projects on the Great Lakes which are involved in this measure, 2 in my district, Lakewood-Luna Pier and Detroit Beach-Woodland Beach, and 1 in Toledo at Point Place.

The difficulty has been that there has been an interpretation by the Budget Bureau of the Flood Control Act that lake projects were not eligible, but only river projects were eligible.

I introduced a bill in this Congress, H. R. 6651, which, in effect, would amend the Flood Control Act so as to remove any ambiguity as to the eligibility of lake projects, which in section 2 would authorize the projects which were recommended by the Corps of Engineers. The text of H. R. 6651 is as follows:

[H. R. 6651, 84th Cong., 1st sess.]

A BILL To permit the construction of certain public works on the Great Lakes for flood control, and for protection from high water levels, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 1 of the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes," approved June 22, 1936, as amended (33 U. S. C., sec. 701a), is amended to read as follows:

"SECTION 1. (a) It is recognized that destructive floods and high water levels upon and along the rivers and other inland waterways of the United States, upsetting orderly processes and causing loss of life and property, including damage to lands and structures thereon, by erosion and inundation because of, or aggravated by, winds, waves, or changing water levels, and impairing and obstructing navigation, highways, railroads, and other channels of commerce between the States, constitute a menace to national welfare; that it is the sense of Congress that flood control on such rivers and inland waterways is a proper activity of the Federal Government in cooperation with States, their political subdivisions, and localities thereof; that investigations and improvements of such rivers and inland waterways, including watersheds thereof, for flood-control purposes are in the interest of the general welfare; that the Federal Government should improve or participate in the improvement of such rivers and inland waterways, including watersheds thereof, for flood-control purposes if the benefits to whomsoever they may accrue are in excess of the estimated costs, and if the lives and social security of people are otherwise adversely affected.

"(b) As used in this Act the term 'waterways', the term 'inland waterways', and the term 'navigable waters', shall include the Great Lakes."

SEC. 2. The projects for protection of areas along the shores of Lake Erie are hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 424, Eighty-third Congress, at an estimated cost of $1,900,000.

Similar legislation has been introduced by one of the Senators and a Member of the House. I know Senator Bender and Senator Potter have introduced similar bills, and there are others. I would just like to discuss briefly this legal technicality raised by the Budget Bureau.

I believe the Corps of Engineers always thought that the Flood Control Act covered lake projects. That is, they did until this technicality was raised by the Budget Bureau.

In this very flood of 1952, a neighboring community, Estral Beach, Mich., was severely flooded, and the Corps of Engineers provided from its emergency fund, $250,000 for a strengthening of existing protective structures which was an evidence of their interpretation of the Flood Control Act as being applicable to lake projects.

The Budget Bureau says if you make lake projects eligible, you will open the door to projects all around the seacoast. I think it is a ridiculous claim.

This survey of the Corps of Engineers found only three projects on the entire Great Lakes resulting from the high waters of 1952 which were eligible, according to their criteria for flood-control relief; so I think the bogeyman the Budget Bureau attempts to raise is without any reality and foundation in fact.

But to remove this ambiguity, this strange interpretation by the Budget Bureau for 3 years, I think, the committees of Congress should consider very seriously clarifying the meaning of the Flood Control Act, so that these projects which are considered to be meritorious can be approved to provide protection for this very important, rapidly growing industrial community between Detroit and Toledo. Monroe is, of course, in the center of that area.

The projects total less than $2 million, including the contributions from the localities.

I appeared before the Public Works Committees, of both the Senate and the House in the 83d Congress and discussed these projects in debate in the House of Representatives. On both the floor of the House and the Senate the members conceded, and have done so, that these were meritorious projects, and the only reason they were not put into the Food Control Act at that time was because they were lake

projects and the Budget Bureau objected to them as not being eligible under the Flood Control Act.

These projects can't be handled on a local basis. One of them would be 3,600 feet long in Detroit Beach-Woodland Beach, and the other one 5,600 feet long at Lakewood-Luna Pier.

It is beyond the capacity of the locality to construct such a structure. It is on navigable water, and I think it is something the Federal Government should assume the responsibility for so that these communities can receive the protection from floods they need so badly.

I appreciate the time that the committee has given me.

Senator KERR. Thank you, Mr. Meader.

Mr. MEADER. Now I would like to introduce Mr. O'Leary, Mr. Chairman.

STATEMENT OF JOHN F. O'LEARY, APPEARING ON BEHALF OF LUNA PIER COMMUNITY IMPROVEMENT ASSOCIATION AND VILLAGE OF LAKEWOOD, OHIO

Mr. O'LEARY. In our area we have approximately 1,000 homes which have suffered from $1,000 to $1,500 damage each, due to annual high water levels. Waters race through our area with depths up to 43 inches in various places, with a spray of 250 feet flooding homes, damaging septic tanks, and contaminating wells. Our grocery stores, post office, and various business concerns were forced to close after the March 22 storm, also our school.

Until recently we had to hold weekly inoculations, too. These damaging storms now seem to be a weekly occurrence. The health of our people is in constant peril due to the filth and debris which becomes thoroughly mixed with our high water, and when the waters recede, this filth is left deposited in our homes, wells, yards, and so forth.

And, of course, it has been necessary for our children to plod through this mess as well as the adults, in the course of their daily affairs.

According to the records we have had many major floods, and some almost comparable to the March 22 storm.

I would like to state before this group that not only is our health in peril, but everything that we ever hope to have, everything that the majority of us, speaking of our homes, have to offer.

At a meeting we had back a few months ago there was discussion as to the lowering of the lake, but the conclusion was that there was no known way except to put in structures such as are used for Lake Superior control and at the present time there was no way to lower Erie.

There were two principal objections to that. The question of building any structure out in a lake would be very, very expensive. It would require an exceedingly strong structure and with the heavy steel sheet piling we would have to use, it would cost a tremendous amount of money, and there still would not be the protection we need.

As was pointed out by some people who spoke at the conference we held, our area is almost always flooded from the back during high water. A structure that is built out into the water would not keep

the lake level down, it might break the waves a little, and there would be less wave action in front; but it would not keep the lake level down and you would still have the water getting around in back and in the front, so that the only good it would be would be that it would be a little more quiet along the dike.

There are many more things I could say, Mr. Chairman, but the nub of the matter is if we expect to survive, we are going to have to have some protection.

Mr. MEADER. Mr. O'Leary has a scrapbook here of newspaper clippings referring to this problem.

Senator KERR. It would only be cumulative and Mr. O'Leary has certainly made the position clear. However, that may be filed with the committee if you desire.

Mr. MEADER. No, not if you feel you have the facts before you, Mr. Chairman, that will be fine.

Senator KERR. Are there witnesses here other than the Corps of Engineers on Oswego River project, Auburn, N. Y.?

I understand Congressman Taber has a statement and each of the New York Senators wants to have a statement in the record and we will keep the record open for that and hear from the engineers at the same time we hear on the other projects for the agenda today.

(Information received is as follows:)

AUBURN, N. Y.

(Report of Board of Engineers for Rivers and Harbors, January 20, 1956)

Location.—Auburn is located 25 miles west of Syracuse on Owasco Outlet, 1½ miles north of the foot of Owasco Lake.

Report authorized by.—Senate Committee on Public Works resolution, September 18, 1951.

Existing project.—None.

Plan of recommended improvement.—Provides for widening and deepening Owasco Outlet between Owasco Lake and a dam 1½ miles downstream and for rehabilitation of outlet works in the dam.

Estimated cost

	Federal	Non-Federal	Total
Survey report (May 1955)	$291,000	$59,000	$350,000
Revised report (January 1956)	304,600	61,700	366,300

Local cooperation.—Furnish lands, easements, rights-of-way, and spoil-disposal area; hold and save the United States free from damages; operate and maintain the work; rehabilitate dam; make necessary bridge and utility alterations; prevent encroachments on channels and on storage area in Owasco Lake.

Project economics

	Survey report	Revised report
Annual charges	$14,100	$14,600
Annual benefits, reduction of flood damages	$20,000	$20,900
Benefit-cost ratio	1.4	1.4

NEW YORK STATE FLOOD CONTROL COMMISSION,
Albany, N. Y., July 17, 1956.

UNITED STATES SENATOR DENNIS CHAVEZ,
Chairman, Senate Committee on Public Works,
Senate Office Building, Washington, D. C.
(Attention Mr. Theo W. Sneed, counsel.)

DEAR SIR: This is a formal request of the New York State Flood Control Commission that the Senate Public Works Subcommittee considering an omnibus flood-control bill include for authorization:

1. Projects recommended by Army engineers for the North Branch of the Susquehanna river pursuant to House Document No. 394, 84th Congress, 2d session.

2. The project recommended by Army engineers for protection of Auburn, N. Y., on Owasco outlet, Oswego River, pursuant to Senate Document No. 133, 84th Congress, 2d session.

These projects have approval of the New York State Flood Control Commission, official agency of the State in all flood-control matters. The Commission, in appearances before Army engineers and in formal letters, has urged that projects recommended in both documents be authorized for construction at the earliest practicable time.

These projects are vitally needed for protection of important industrial areas of the State. Those recommended in the Susquehanna River report also will provide protection for agricultural lands bordering on the main stem and tributaries of the Susquehanna River in New York and Pennsylvania.

The State is prepared to cooperate in prosecution of the projects in accordance with requirements recommended by Army engineers in both documents.

It is my understanding that Senators Lehman and Ives are recommending, or have recommended, that these projects be authorized.

Respectfully yours,

JERRY W. BLACK, *Chairman.*

Senator KERR. Oswego River at Auburn, N. Y.

Mr. ADAMS. Mr. Chairman, I am Harry Adams. The report on the Oswego River Basin was authorized by the Senate Public Works Committee resolution dated the 18th of September 1951.

The Oswego River Basin is located in the central part of the New York State and includes the Finger Lakes area and drains into Lake Ontario. The flood problem concerns flood damages around Owasco Lake and in the outlet from Owasco Lake which flows through the town of Auburn, N. Y.

Flood damages are generally proportioned about 40 percent around the lake and 60 percent in the town of Auburn. There is an existing State dam which regulates the outflows from the lake located at this point.

The plan of improvement that is proposed would deepen and widen the outlet channel between the lake and the dam in order to be able to discharge waters at lower lake level, and for rehabilitation of the dam to increase its discharge capacity.

The first cost of the project at January 1956 price levels is $366,300, of which $61,700 would be paid by non-Federal interests. The annual benefits as shown on the map——

Senator KERR. The annual charges?

Mr. ADAMS. The annual charges. They are at May 1955 price levels. At the current price levels, based on January 1956, the total annual charges would be $14,600. The annual benefits $20,900 and the benefit-cost ratio 1.4, the same as shown on this chart.

There would be the usual requirements of local cooperation; lands, rights-of-way, spoil area, to operate and maintain the work, and non-Federal interests would be required to undertake the rehabilitation of the dam. That accounts for the costs chargeable to the local people.

The report has cleared the Bureau of the Budget. There is no objection.

The State of New York concurs in the report. And the report was transmitted to Congress on the 22d of June 1956.

That concludes my statement.

Senator KERR. Are there any questions?

Senator HRUSKA. No, sir.

NORTH BRANCH SUSQUEHANNA RIVER, N. Y. AND PA.

The record will show that there is a statement here from Senator Lehman with reference to the North Branch Susquehanna River project in New York and Pennsylvania. The statement will be received and included in the record at this point.

(The statement referred to above follows:)

UNITED STATES SENATE,
Washington, D. C., July 16, 1956.

Senator DENNIS CHAVEZ,
Chairman, Senate Committee on Public Works,
United States Senate, Washington, D. C.

DEAR DENNIS: I have been informed that your committee's Subcommittee on Rivers and Harbors is currently holding hearings on two flood-control projects of deep interest to citizens of New York State. These are the flood-control projects for Owasco outlet near Auburn, N. Y., and for the North Branch of the Susquehanna River, together with its tributaries.

Flood control in each of these areas is most urgently needed. The vicinity around Auburn has been repeatedly inundated during the past year and I have received many urgent letters from local residents asking that appropriate control measures be given a high priority. I most earnestly hope that your committee will find it possible to include in the omnibus rivers and harbors bill that will soon be before you the authorization necessary for funds to be appropriated and work commenced to protect the Auburn area.

Measures to protect the upper Susquehanna Basin are of equally deep concern to me. In 1936 this basin was visited by extremely severe floods which took 32 lives and did many millions of dollars worth of damage. There have been repeated floods since that time, of varying degrees of severity. The average annual cost of these floods has been on the order of magnitude of $22 million. Although some protective works have been constructed since the 1936 disaster, the general exposure to danger of this area remains extreme. Last summer, Hurricanes Connie and Diane missed the Susquehanna Basin by a mere 40 miles or so. Had their waters been loosed in the Susquehanna Basin instead of 40 miles to the north and west, the toll in lives and property damage would undoubtedly have been as great as, if not greater than, the devastation that was actually visited upon the areas which bore the full brunt.

I sincerely hope, therefore, that your committee will also find it possible to include in the omnibus bill the necessary authorizations covering flood-control measures for this exposed region.

I would appreciate it if you would make this letter a part of the records of your committee.

With kindest personal regards.

HERBERT.

NORTH BRANCH SUSQUEHANNA RIVER TRIBUTARIES, NEW YORK AND PENNSYLVANIA

Location.—North Branch Susquehanna River is in south-central New York and northeastern Pennsylvania.

Report authorized by.—Senate Committee on Commerce resolution, July 8, 1942, and nine other authorizations.

Existing project.—Provides for 17 local protection projects and 10 flood-control reservoirs. Fifteen local protection projects have been completed, one is under construction, and planning for construction of one is in progress. Four flood-control reservoirs have been built.

Plan of recommended improvement.—Three reservoirs in the Tioga River Basin on Cowanesque River, Crooked Creek, and Tioga River. Local protection at Nichols, N. Y., and Elkland, Pa., and channel improvement at Cortland, N. Y. Channel improvements have been completed at Cincinnatus and Sherburne under the snagging and clearing authority and at Conklin-Kirkwood under section 212, 1950 Flood Control Act.

Estimated cost

	Federal	Non-Federal	Total
Project report (1954):			
Reservoirs	$82,130,000	0	$82,130,000
Local protection and channel improvement	2,010,000	$250,000	2,260,000
Total	84,140,000	250,000	84,390,000
Current (January 1956):			
Reservoirs	90,340,000	0	90,340,000
Local protection and channel improvement	2,210,000	275,000	2,485,000
Total	92,550,000	275,000	92,825,000

Local cooperation.—Required for local protection and channel improvement projects only. Furnish lands, easements, and rights-of-way; hold and save the United States free from damages; maintain and operate project; and prevent encroachments.

Project economics

	Project report	Current
Annual charges:		
Reservoirs	$3,052,000	$3,357,000
Local protection and channel improvement	92,000	102,000
Annual benefits:		
Reservoirs	4,678,000	5,146,000
Local protection and channel improvement	174,000	191,000
Benefit-cost ratio:		
Reservoirs	1.53	1.53
Local protection and channel improvement	1.88	1.88

Senator HRUSKA. Now, General, on the North Branch, Susquehanna River, New York and Pennsylvania.

General ITSCHNER. Mr. John Murray will handle that.

STATEMENT OF JOHN MURRAY, CORPS OF ENGINEERS

Mr. MURRAY. Mr. Chairman, this concerns the North Branch of the Susquehanna River, located in south central New York State and north central Pennsylvania. The drainage area above Sunbury is 11,300 square miles, of which about 5,000 are in New York and 6,300 are in Pennsylvania.

The report on this river basin was authorized by resolution of the Senate Commerce Committee on July 8, 1942, and there are nine other authorizations for the Chief of Engineer's report.

Severe floods occurring in July 1935, March 1936, and May 1946, together with certain lesser floods, caused damage of about $80 million since 1935. Should these floods recur the damage in dollars would far exceed this value due to the developments on the flood plains since that time.

The plan of improvement recommended by the Chief of Engineers in his report of February 24, 1955, provides for 3 reservoirs in Pennsylvania, 1 local protection project at Elkland, Pa., 1 local protection

project at Nichols, N. Y., and a channel improvement project at Cortland, N. Y. The three reservoirs are Tioga, on the Tioga River; Hammond, on Crooked Creek; and the Cowanesque project on the Cowanesque River. These reservoirs will provide about 225,000 acre-feet of storage for flood control in the Chemung River Valley which has available about 24,000 acre-feet of storage from the existing Almond and Arkport Reservoirs. These projects would reduce a flood such as that of May 1946 by about 8 feet at Corning and 5½ feet at Elmira. The May 1946 flood at these locations fully tested the local protection projects provided there and were within a foot of overtopping the dikes at these cities.

The levee projects for Elkland and Nichols are both designed for floods exceeding the maximum that has occurred. They would prevent damage of three quarters of a million dollars and $450,000, respectively, for the maximum floods of record at these two towns.

The improvement recommended for Cortland, N. Y., provides for channel work on the Tioughnioga River and on the West Branch; and removal of a low mill dam at the confluence. Stage reductions would average 2 and 4 feet, respectively.

The total cost of the reservoirs is $90,340,000. The total cost of local improvements is $2,485,000, of which $2,210,000 would be borne by the Federal Government. For these latter projects, local interests would be asked to furnish lands, easements, and rights-of-way and hold and save the United States free from damage.

The annual charges for the reservoirs are estimated at $3,357,000 and for the local protection works at $101,700.

The annual benefits are $5,145,600 for reservoirs and $191,400 for the local projects.

For the reservoirs, the benefit-cost ratio is 1.53; for the local projects, it is 1.88. Each of the project is separately economically justified.

The Bureau of the Budget has invited attention to the opposition expressed by local interests in Tioga County toward the recommended proposals and other authorized projects in the basin, and states that it would appear that the flood protection afforded by these reservoirs may never be realized. The Bureau believes Congress should be fully informed of this problem particularly as it affects the degree of protection afforded by downstream local improvements.

Senator HRUSKA. That is in the State of Pennsylvania?

Mr. MURRAY. The reservoirs are in the State of Pennsylvania. The river flows northward into New York and then eastward to join the North Branch at Athens. This is the Chemung River Valley on this side and the North Branch Valley on this side. The rivers join and flow southward at Athens, Pa.

Senator HRUSKA. Opposition to which the Bureau of the Budget refers comes from the area south of New York-Pennsylvania line, and in the vicinity of the proposed location for Tioga Dam; is that correct?

Mr. MURRAY. Yes, sir; Tioga County, Pa. These reservoirs, in addition to supplying flood control immediately below the reservoirs, would, in combination with the authorized system, reduce maximum floods as much as 6 feet at Towanda, and as much as 2 feet above Sunbury.

Senator HRUSKA. What is the final recommendation of the Bureau of the Budget?

Mr. MURRAY. The recommendation of the Bureau of the Budget was that there was no objection to submission of the report to the Congress.

Senator HRUSKA. Does that conclude your statement?

Mr. MURRAY. Yes, sir.

Senator KERR. All right; were the Senators from New York notified that they would have an opportunity to make a statement? Has either of them filed a statement?

Miss PORTER. Only Senator Lehman.

Senator KERR. Is there proposed legislation before us with reference to this project?

Miss PORTER. No, sir.

Senator KERR. I would say that we pass that until there is. What do you think?

Senator HRUSKA. I think the offices of the Senators should be contacted to affirm so that it will not go by default, Mr. Chairman.

Senator KERR. That being the case, we will go to Connecticut.

Connecticut River Basin and adjacent streams, Bridgeport Harbor, Conn.

Senator Bush, do you have a statement you would like to make on that?

Senator BUSH. May I borrow the chairman's list of witnesses?

Mr. Chairman, I will not make any statement at this time due to pressure of time, but I would like the committee to give us about 15 minutes to present witnesses.

Senator KERR. You may have what time you require, and I will be glad to have you present your witnesses.

Senator BUSH. First witness, therefore, Mr. Chairman—and I thank you for that assurance—Mr. William S. Wise, the water commissioner and director of all State flood activities in the State of Connecticut. Mr. William Wise. Come around, Mr. Wise.

STATEMENT OF WILLIAM S. WISE, WATER COMMISSIONER AND DIRECTOR OF ALL STATE FLOOD ACTIVITIES IN THE STATE OF CONNECTICUT

Mr. WISE. Mr. Chairman, members of the committee, with your permission, I would like to receive for the record a statement from Governor Ribicoff and also a statement from the State flood control water policy commission, and to save time, I will not read them, but I would like to just make a few brief remarks.

Senator KERR. You may place those statements in the record and make such remarks as you care to.

(The statements referred to above follow:)

STATEMENT BY GOV. ABRAHAM RIBICOFF, OF CONNECTICUT

The changing weather pattern of the past 20 years has brought hurricanes and floods of steadily increasing violence to the State of Connecticut. This trend culminated with the floods of last autumn which the Army Corps of Engineers have described as "the most disastrous and most costly" in their experience. Included in this comparison was the floods in the valleys of the Mississippi, the Missouri, and all those rivers where the great disasters of the past have occurred.

Here is what the 1955 floods cost Connecticut: 91 persons are known dead and 12 others missing and presumed dead; 86,000 persons were unemployed; more

than 1,100 families were left homeless; another 2,300 families were at least temporarily without shelter; nearly 20,000 families suffered flood damage; 67 of our 169 towns were affected by the floods.

The damage to individual property, to business, to industry, and to State and municipal facilities has been estimated at almost half a billion dollars.

Thus Connecticut faces a critical situation which demands prompt and decisive action by the Congress of the United States.

The State of Connecticut has done much for itself.

The Connecticut Legislature met in emergency flood session and authorized the spending of more than $73 million. This money is rebuilding town roads and bridges and State highways and bridges. It is reimbursing the local communities for tax losses which would have left them in crippling finanical condition. It is building public housing and guaranteeing low-interest, long-term housing mortgages for families which lost their homes in the floods. It is assisting in redevelopment so that from the wreckage of this disaster can rise a finer Connecticut than that which stood before the floods came.

One community—the capital city of Hartford—was even authorized to sell up to $10 million in bonds to build protective works of its own.

Connecticut is spending $1 million on flood-control projects. It is regulating flood hazards on dams and reservoirs. It is establishing stream encroachment limits on all waterways in Connecticut. It is undertaking a program of studies and control of shore erosion, and already has appropriated $2 million for this work. Our flood control and beach erosion projects represent a new approach to this problem from a State standpoint.

In addition to all this, Connecticut people contributed more than $3 million to flood-relief funds.

So you can see that the people of Connecticut are meeting the complex problems facing them with courage, with determination, with faith in the future.

But Connecticut also needs Federal help to protect it from future floods. The Federal Government, from both precedence and experience, has the responsibility for flood-control projects. In most instances, the control of floods in river valleys can be solved only by large and expensive projects. No State can carry by itself the full burden of flood protection—especially when its people, its business and industrial firms, and its communities have suffered such heavy losses.

Connecticut doesn't feel that it is coming to Washington today and making inordinate demands on the Federal Treasury. Connecticut has more than carried it share of the national taxation load and helped less fortunate States. In the last 10 years alone, Connecticut taxpayers poured almost nine billion dollars into the Federal Treasury.

For every thousand dollars we have contributed in Federal taxes during the past 25 years, we have received back $49.92—or about 40 percent as much as the rest of the country. Only one other State has had a smaller return. The maximum figure for any State, by comparision, is $534.46.

Now the time has come when Connecticut needs sizable amounts of Federal funds to protect our homes, our loved ones, and our economic life. There should be no hesitancy about meeting these needs.

We are here today to respectfully request this committee to include in the omnibus public works bill the following:

(1) The authorization of a flood-control dam on the Mad River 2 miles above Winsted, Conn. The estimated cost is $5,970,000.

(2) The authorization of the Hall Meadow Brook flood-control dam on the West Branch of the Naugatuck River 5 miles above Torrington, Conn. The estimated cost is $2,500,000.

(3) The authorization of a flood-control dam on the East Branch of the Naugatuck River 1½ miles above Torrington, Conn. The estimated cost is $2,730,000.

(4) The authorization for carrying out an urgently needed deepening of the main channel of Bridgeport Harbor and Burr Creek and Johnson's Creek.

The flood-control projects are of such vital importance to Connecticut that if required by the Congress I am sure the State of Connecticut will be willing to make contributions to assure their quick completion. However, we respectfully request this committee to reconsider the recommendation by the Army engineers that the non-Federal expenses in connection with the construction of these dams be set at the large sums of $390,000 for the Winsted Dam, $460,000 for the Hall Meadow Brook Dam, and $890,000 for the dam on the East Branch

of the Naugatuck River. In view of the share of the Federal taxation load that Connecticut has carried over the years as outlined above, we feel that it is unfair to ask us to assume such a heavy burden for this vital regional protection.

These dams are not local projects; they will afford protection for river valleys. The Winsted Dam will protect communities along the Mad and Still Rivers, as well as in the Farmington River Valley. The dams on the East and West Branches of the Naugatuck River will offer protection for Torrington, as well as the area below Torrington in the Naugatuck River Valley.

It is imperative to the safety and well-being of the people of Winsted and Torrington and their surrounding areas that study, design, and construction of these flood-control dams be started as soon as possible. Both Winsted and Torrington suffered grievous blows in the flood of August 19, 1955. The loss of life was high, industrial and business operations were disrupted for extended periods, and the damage to public and private property was in the millions of dollars. These people must be given peace of mind and the assurance that the rebuilding they are doing will not be nullified by another great flood. The only way they can be given this peace of mind and reassurance is through Federal flood-control works.

Had these dry dams which we are asking for today been in existence a year ago, the damage by the record August flood would have been reduced by at least 85 percent in both Winsted and Torrington. Damage also would have been reduced in the Farmington River Valley below Winsted and the Naugatuck River Valley below Torrington.

The Bridgeport Harbor is a facility of key importance in the industrial economy of Connecticut. Bridgeport is one of the big industrial cities in Connecticut and the East and is the center for vital defense work. More oil and lumber, which are so important to defense work, are received in Bridgeport Harbor than anywhere else in the State. Studies conducted by the Army engineers and the State water-policy and flood-control commission show that the deepening of this harbor is warranted and justified.

We also support the improvements in Burr Creek and Johnson's Creek. The work would consist of deepening the channel and the building of breakwaters, and would be of great benefit to small boats.

The development of our harbors, to accommodate bigger vessels and to bring the fullest possible benefit to the State's economy and to our people, is dependent on Federal assistance.

In closing, it is important to understand the major role that Connecticut plays in the economy of the United States. We continue to lead the Nation in many important fields of industrial production, including jet aircraft engines, brass and copper products, ball bearings, firearms, silverware, and other diversified manufacturing. The State's record of steady manufacturing employment is among the best in the country. An industrial interruption in Connecticut has harmful effects throughout the Nation.

What has to be realized is that one of the biggest beneficiaries in the continuous productivity of Connecticut is the United States Government. Federal income taxes take about 50 percent of the earnings of Connecticut firms. If flood destruction reduces the earning power of these companies, then the United States Treasury loses large amounts of tax revenues. When a flood disrupts industry, the Federal Government loses more than the earnings for that year. Such losses can be deducted from profits earned in other years, thus cutting into other than current tax revenue.

So simple logic shows that flood-control projects help pay for themselves many times over.

It is a sound business investment, therefore, for the United States Congress to authorize the flood-control dams and the harbor improvements Connecticut requests today. In addition to benefiting the people of Connecticut and the economy of Connecticut and the Nation, such appropriations help insure the steady flow of Federal tax revenue.

STATEMENT OF THE NAUGATUCK VALLEY RIVER CONTROL COMMISSION

The Naugatuck Valley River Control Commission is vitally concerned with flood control on the Naugatuck River and its tributaries and, because of this direct concern, wishes to amplify its previous statements to the New England

district of the Army engineers on the subject of flood-control measures currently under consideration for the headwaters of the Naugatuck above Torrington.

RESPONSIBILITY OF THE NAUGATUCK VALLEY CONTROL COMMISSION

This commission was appointed in December 1955 by Governor Ribicoff under authority of Special Act 52 passed by the Connecticut General Assembly at its November-December 1955 special flood session. It is charged in the wording of the act to "study in all its aspects the problems of flood control in the Naugatuck River Valley, including the Naugatuck River and tributary and adjacent streams"; to "cooperate with and correlate its efforts with Federal and State agencies in the same field"; to "give all possible aid to the regional and municipal flood-control planning and redevelopment agencies"; and to "make recommendations to the Governor and the Connecticut General Assembly."

Members of the commission represent each of the 9 towns in the Naugatuck Valley and have a combined experience with the Naugatuck of 240 years. Immediately after organization the Commission appointed, as its technical advisers, a group of engineers whose experience with the Naugatuck River in its normal, freshet, and flood stages totals more than 175 years. Thus the commission and its staff represent a combined experience with the Naugatuck River of more than 415 years.

HISTORY OF THE TORRINGTON DAMS PROJECT

In March 1956 this commission forwarded to Governor Ribicoff an interim report on the problem of flood control on the Naugatuck River and tributaries and adjacent streams. This report contained certain specific recommendations for the Torrington reach, one of which was as follows:

"It is recommended that the Army engineers furnish the city of Torrington with a permanent flood-control plan, including, if deemed advisable by them, a dry or multipurpose dam on both the East and West Branches of the Naugatuck River above the city."

Copies of this report were furnished the division engineer, New England division, Corps of Engineers.

The division engineer of the New England division on May 31, 1956, forwarded to the Chief of Engineers of the Department of the Army an interim report on review of survey, Housatonic River Basin, upper Naugatuck River above Torrington, Conn. In this report he recommends 2 flood-control reservoirs above Torrington, 1 on Hall Meadow Brook (West Branch) and the other on the East Branch of the Naugatuck.

DAM AND RESERVOIR SPECIFICATIONS

The Hall Meadow Brook Dam site, as recommended by the division engineer, would be located in the city of Torrington at a point 0.4 mile above the confluence of Hall Meadow Brook with the West Branch of the Naugatuck River about 5 miles above the center of Torrington. The reservoir, which would lie in the city of Torrington and the town of Goshen, would have a capacity of 7,200 acre-feet, equal to 11.1 inches of runoff from the net drainage area served by the dam of 12.2 square miles. The project would be a so-called dry reservoir and would consist of a rolled earth-fill dam 55 feet high and 1,080 feet long.

Estimated Federal first cost of the Hall Meadow Dam and Reservoir would be $1,960,000. In his report the district engineer raises the question of local interests providing lands, easements, and rights-of-way estimated to cost $460,000 and maintaining the project after completion. Annual non-Federal charges, including loss of local taxes, are estimated at $29,000.

The East Branch Dam site would be located in the city of Torrington 3.0 miles upstream from the confluence of the East and West Branches and about 2.5 miles above the center of Torrington. The reservoir which would lie entirely within the city limits would have a flood-control storage capacity of 5,150 acre-feet, equal to 10.5 inches of runoff from the net drainage area of 9.3 square miles. The dam itself would be of rolled earth fill and would be 95 feet high and 886 feet long.

Estimated Federal first cost of the East Branch Dam and Reservoir would be $1,780,000. The district engineer here also raises the question of local interests providing lands, easements, and rights-of-way for the project and estimates this cost at $890,000. Annual charges if borne by the locality, including tax losses, would be $38,000.

DESIRABILITY OF THE DAMS

The Naugatuck Valley River Control Commission wishes to emphasize at the outset that it agrees completely with the recommendations of the district engineer that flood-control dams and reservoirs be constructed on Hall Meadow Brook and the East Branch. In our report, Comments on the Report of Dam Studies Made Under the Direction of the Corps of Army Engineers on the Principal Tributaries of the Naugatuck River Basin, we strongly endorsed construction of both dams. This endorsement followed detailed examination by the commission's technical advisory group. In a letter dated May 14, 1956, to the division engineer of the New England division the chairman of the commission stated the position of the commission as follows:

"This commission * * * approves wholeheartedly the proposals which you have made in connection with the establishment of reservoirs on the West Branch (Hall Meadow) and the East Branch of the Naugatuck River at Torrington.

"Approval of these reservoirs is based upon a detailed study of the proposals made by the engineering advisory group of the commission. We earnestly urge the early authorization and construction of these projects."

The full text of this letter is incorporated in the May 31, 1956, interim report of the office of the division engineer, New England division.

COST RESPONSIBILITY OF THE FEDERAL GOVERNMENT

The commission also strongly recommends that the cost of these projects be borne by the Federal Government in the same manner as the Thomaston Dam, which has already been authorized. In his letter of May 14, cited above, the chairman of our commission stated:

"It is the feeling of this commission, which has full knowledge of the financial status of the State and the municipalities, that the cost of these projects should be borne by the Federal Government."

The reasons for this opinion are based upon the firm precedent that costs of such projects are borne by the Federal Government when the benefits are general. We see no reason for departure from this long-established policy and practice.

There is no question among those who have examined the proposals in detail that the flood-control effects of the dams will be felt in the entire valley north of the Thomaston Reservoir. In his report the district engineer also points out that in the larger floods "* * * the benefits would be realized downstream of the Thomaston Reservoir." The Army engineers indicate that the presence of these reservoirs would increase the available storage at Thomaston by approximately 19 percent. The 189,000 people who live and work in industry, agriculture, commerce, and the professions in the towns of Litchfield, Harwinton, Thomaston, Watertown, Waterbury, Middlebury, Naugatuck, Beacon Falls, Seymour, Oxford, Ansonia, and Derby to the south, will be greatly benefited by these dams in the event of a flood of the proportions of that of last August.

A description of the topography of the Naugatuck Valley will help to illustrate why these dams will be of general benefit to the entire valley. The valley is only 50 miles long, entirely located within the State of Connecticut. It is very narrow, and the river has a total drainage area of only 312 square miles. It is steep and is susceptible to flash flooding. For example, in the area under consideration for these reservoirs the river falls approximately 900 feet in 13 miles. It is apparent therefore that flood control at the upper end of such a short, steep valley will have an effect throughout its entire length.

There is no question that these dams are small in comparison to those constructed by the Army engineers in other parts of the United States. We do not believe, however, that size should be a determining factor in the decision as to whether or not the costs of any given project should be borne by the Federal Government. The Thomaston Dam is also small in comparison to the dams constructed or to be constructed on the larger rivers of the western United States.

There is no question that the construction and maintenance of the Thomaston Dam by the Federal Government is a proper expenditure of Federal funds. It is of benefit to the entire Naugatuck Valley. The dams above Torrington serve the Naugatuck Valley as a whole and should be authorized on the same basis as the Thomaston Dam.

PREVIOUS CONTRIBUTIONS BY THE CITY OF TORRINGTON

Another factor of great importance in determining whether to assess local interests for a portion of the cost of the dams and reservoirs, is the contribution

already made by the city of Torrington for flood control. Torrington is a city of some 28,000 inhabitants. During the August 1955 flood the city suffered losses of $22.4 million. An indication of the impact of this loss may be realized by comparison with the total tax receipts of the city for the year ending August 31, 1955, of only $2,453,648. Following the flood the city sought the assistance of the Army engineers in integrating a flood-control plan into the rehabilitation of the city. With the technical advice and assistance of the Army engineers the city has already expended $800,000 of its own money in land acquisition, removal of buildings, and river-channel enlargement in an effort to reduce the flood danger in the city. At the same time the city will be required to expend an additional $150,000 as its share of a redevelopment project.

Addition of a capital investment of $1,350,000 and annual charges of $62,000 would be a crushing financial blow to this city which has already made all the local contributions which should be expected of it.

PREVIOUS CONTRIBUTIONS BY THE STATE OF CONNECTICUT

The same may well be said of the State of Connecticut. We are aware that Governor Ribicoff is prepared to ask the State legislature for funds to provide the local contribution. He does not feel, however, nor do we believe that the State should be expected to furnish such a contribution. During the November–December special flood session the general assembly appropriated more than $33 million for flood reconstruction. In addition, bond issues of many more millions were authorized. One of these statutes authorized the State flood control and water policy commission to establish channel lines on all the rivers in the State and condemn if necessary structures lying within these lines. A preliminary $1 million was authorized for this program, but it is anticipated that at least $40 million will eventually be required of the State. This money will have to be provided by the general assembly. There is also every indication that the cost of reconstruction of bridges so as to remove their potential hazard in floods will be substantially more than was appropriated by the last legislature.

In conclusion, the Naugatuck Valley River Control Commission wishes to emphasize (1) the need for the rapid construction of the two reservoirs under consideration, (2) the fact that it hopes there will be no departure from the established policy and practice in Federal assumption of all costs of reservoir construction, (3) that it is fully persuaded that these dams will be of great benefit to the entire valley rather than to a single community.

The commission takes this opportunity to thank your committee and the Congress generally for the support given us during the present session on matters of flood control. People of our valley have supported by their taxes flood-control projects in other sections of the country. We are therefore not ashamed to ask for this much-needed help at this time.

Our commission's jurisdiction does not extend to our neighbor Winsted, in the Farmington River Valley. However, we have full knowledge of the flood-control problems in that area and have followed developments there. We bespeak earnest consideration of the plea of the people of that valley for the establishment of the proposed dam at Winsted. We feel that the contentions which we have made in regard to the proposed dams at Torrington as to the need, the necessity for full Federal financing and benefits to the whole valley apply with equal force to Winsted and the Farmington Valley.

MEMBERS OF THE NAUGATUCK VALLEY RIVER CONTROL COMMISSION, WATERBURY, CONN.

Torrington: John H. Brooks, vice chairman
Thomaston: Thomas I. S. Boak
Waterbury: C. L. Eyanson, chairman
Naugatuck: Willard E. Bittle
Beacon Falls: William P. Arnold
Seymour: Paul Pawlak
Ansonia: Lawson van Riper
Derby: Edward S. Coe
Shelton: Frederick M. Daley; T. Mitchell Ford, secretary

TECHNICAL ADVISORY GROUP OF THE NAUGATUCK VALLEY RIVER CONTROL COMMISSION

Torrington: Robert S. Storrs
Thomaston: Henry G. Hutchinson
Thomaston: Clarence E. Pratt
Waterbury: William F. Aylard
Waterbury: Thomas W. Colina
Naugatuck: L. A. Doherty
Naugatuck: C. R. Toothaker
Ansonia: Howard M. Pritchard
Seymour: Stephen J. Zelle
Shelton: Alexander Sandomirsky

Mr. WISE. Governor Ribicoff, in his statement, briefly describes the unparallelled flood losses that Connecticut suffered last fall, and also the unprecedented appropriation the State legislature made in the sum of $73 million to assist these courageous victims in restoring and rebuilding their communities, and their industries, and they are all staggering under damages of a quarter of a billion dollars.

He also discussed the State's policy, and its program and its efforts in undertaking this tremendous task.

We are here today, pleading for your favorable consideration, favorable action, and authorization of 3 flood-control projects in 2 river valleys, that so seriously damaged 2 cities.

One of the cities is the city of Winsted with a population of 10,000 people. That city has an assessed valuation of $20 million, but the damages from one flood in August was $11,600,000. The damages were equivalent to more than 50 percent of the assessed valuation of that city.

Now the Army engineers have recorded that it is feasible to build a flood-control dam above this city for a cost of $5,900,000, and that it is likely that if this dam had been built prior to the floods, it would have saved this city, this city and valley below, $15 million.

Now the city of Torrington, has a population of 30,000 people, and an assessed valuation of just under $17 million, and they suffered a loss of over $13 million, or more than 50 percent of their assessed valuation.

Senator KERR. That is on the same river, Mr. Wise?

Mr. WISE. Two different rivers.

Senator KERR. I wonder if you would make that clear at this point?

Mr. WISE. The city of Winsted is on the so-called Mad River which is a tributary of the Connecticut River. And the city of Torrington, is on the Naugatuck River.

The Army engineers, in their study, have found that it is feasible and practicable to build two dams above Torrington, one on the West Branch of the River, and the other on the East Branch. The total cost of these two dams is about $5,150,000.

The Army engineers estimate that these two dams would protect, not only Torrington, but portions of the valley, Harwinton and Litchfield, are located and the damage in those valleys was $23 million, and if these dams had been built, the $20 million worth of damages would have been saved.

Now, the Governor in his statement, and I would just like to read this portion of it:

> The flood-control projects are of such vital importance to Connecticut that if required by the Congress, I am sure the State of Connecticut will be willing to make contributions to assure their quick completion.
>
> However, we respectfully request this committee to reconsider the recommendations by the Army engineers that the non-Federal expenses in connection with the construction of these dams set at the large sum of $380,000 for the Winsted dam, $460,000 for the Hall Meadow Brook dam, and $890,000 for the dam on the East Branch of the Naugatuck River.
>
> In view of the share of the Federal taxation load that Connecticut has carried over the years as outlined above, we feel that it is unfair to ask us to assume such a heavy burden for this vital regional protection.

In addition to that, Mr. Chairman, the committee, we believe that in the city of Torrington, in addition to absorbing the many millions of

dollars in damages, has allocated and authorized an expenditure of $800,000 to carry out preliminary flood-control work, and the city of Winsted has obligated and is going to obligate themselves to many thousands of dollars. That will be brought out later.

In view of those tremendous expenditures, we feel that, or we plead with the committee to reconsider this local contribution, not that Connecticut is opposed to local contributions. We have always heartily supported and have always generously contributed toward it willingly.

In these particular cases, under the hardships, we just plead for your consideration in this matter.

There is one other matter and that is Bridgeport Harbor; Bridgeport Harbor is one of the vital harbors in the State of Connecticut. Bridgeport, as you know, is one of the heavy industrial cities. And the needs for the development of this—

the growing demands for the production that come in to Bridgeport, fuel, lumber, and so forth, is increasing tremendously, and the Army engineers have just reported out the recommendations that Bridgeport Harbor be improved by deepening the main channel and also by improving other smaller areas for smaller boats for commerce and pleasure.

Now our study, the Flood Control Commission study, has indicated that an even greater improvement is necessary, feasible, and warranted above what the Army engineers recommend, so, we would like to consider or feel that the recommendations of the Army engineers should constitute an absolute minimum improvement at this time. And, we plead for your favorable consideration in authorizing this project.

Senator BUSH. Mr. Chairman, might I just ask Mr. Wise this question. Is it not true that in your observation, that requirement of local participation in this kind of a project on the Mad River and at the Torrington point also, would constitute a departure from previous practice?

Mr. WISE. That is true.

Senator BUSH. As far as the engineers are concerned?

Mr. WISE. That is true.

Senator BUSH. And is it not also true, Littleville Reservoir, going ahead in Massachusetts, is going ahead without local participation?

Mr. WISE. That is very true; yes, sir. And the statement announcing the Littleville Reservoir, states very plainly, at the bottom. "No local cooperation is required," and that is a dam that is just the same size as dam in Winsted.

Senator HRUSKA. No local cooperation is required.

Senator BUSH. I have no other. Thank you, Mr. Wise.

The committee appreciates your time very much.

I would like to ask Mayor William T. Carroll, of Torrington, to come up, and I would like Mr. Farnsworth, if he would, to come with Mayor Carroll. Would you come up, Mr. Farnsworth.

Gentlemen, Mayor Carroll is the mayor of Torrington, 1 of 2 or 3 hardest hit of the cities in 1955, and he did yeoman service for his people during that tragic period there. And Mr. Samuel Farnsworth represents the Naugatuck Valley Flood Control Commission. He will just have a word to say after Mr. Carroll testifies.

Mayor CARROLL. Thank you very much, Senator Bush.

STATEMENT OF MAYOR WILLIAM T. CARROLL, OF TORRINGTON, CONN.

Mr. CARROLL. Mr. Chairman, distinguished Senators, my name is William T. Carroll, mayor of the city of Torrington. Mr. Wise has covered the needs pretty much of Torrington, Winsted, and Naugatuck Valley. I don't want to sound repetitious, but I have prepared a brief statement, if I may. It will only take a moment to read it, and I am coming here today to represent the people actually of my city, to make an appeal for them, because the disaster we suffered August 18, 1955, is still keen in their memories. If I may.

Mr. Chairman, I am grateful for this opportunity to speak before your committee regarding pending legislation before the Congress that affects the future planning and development of my city and also the lives of my fellow citizens, and the residents of the Naugatuck River Valley. In submitting this brief, I cannot stress too strongly that the fate of the lives, the homes, and the property of many thousands of residents rest in the hands of this committee because it is here that decisions will be made which will affect drastically the welfare of Torrington and the surrounding area, particularly to the south.

I say this, Mr. Chairman, Mr. Wise stressed the loss in dollars. I stress also the loss in lives. We lost 8 lives in the city of Torrington, and we have recovered 7 bodies; still 1 body of a 6-year-old girl, the mother drowned with her, we have never recovered; so in Torrington there is that fear still.

I am sure that this committee goes along with the sentiments I express.

There is not a man, woman, or child living in Torrington today who is not aware of the significance of the actions which will take place right here. These are the people who have given so much in personal sacrifice, unselfish actions, and heroic deeds.

Tragic heartaches due to flood destruction in the loss of lives and property is still keen in their minds. Our actions and the actions of this committee will chart the future course of Torrington and our neighboring communities. The people under the leadership of its elected officials, also with the help of a great American, Brig. Gen. Robert Fleming and the Corps of United States Army Engineers; Val Peterson, National Civil Defense Director; Governor Ribicoff, all of our State agencies, the Red Cross, Salvation Army, United States Senator Prescott Bush, have helped the communities immensely. Their financial and technical assistance has enabled us to stage a remarkable recovery and the program is progressing rapidly.

The flood has had a tremendous impact on the finances of the city and its taxpayers.

In addition to the personal losses that our people suffered and had to pay for, the municipal losses have saddled them with an additional burden in taxes.

It is my belief that the Federal Government should continue its effort to help Torrington by bearing all of the expenses incidental to the construction of the two dry dams on the East and West Branches of the Naugatuck River.

Expenditure by the city of large sums of money to acquire land for the dams would put another serious drain on the taxpayers' pocketbook.

The people of the city of Torrington have met a challenge and have forged ahead, spending hundreds of thousands of dollars to carry on the program recommended by the Corps of Army Engineers; to protect ourselves against future floods. They also have great confidence in their elected representatives to believe that their requests for assistance will not fall on deaf ears.

It is my earnest hope that your committee will contribute to their future welfare and prosperity by recommending to Congress that Federal funds be used to acquire the necessary lands for these projects.

I understand that this is probably the first time that the Federal Government has requested the municipalities or communities to purchase lands where work was to be done. Again I hope that the Federal Government and this committee will see fit to recommend that the Federal Government assume the full cost of acquiring the properties, that it would really be a tremendous burden on the people of the community who suffered so terribly during the flood.

I want to thank you again for giving me this opportunity of appearing before this committee and it has also been requested for governor to submit a brief. It is kind of lengthy. Mr. Wise has taken excerpts from it.

And this Commission represents nine towns in Naugatuck Valley, and these men, are from all walks of life, they are industrial leaders, bankers, businessmen, vitally interested in maintaining our industries and business in Naugatuck Valley.

We have contributed greatly to the defense of this country by products that are manufactured in Naugatuck Valley.

I will submit these briefs, if I may, Mr. Chairman, and have them placed in the record.

Senator KERR. That may be received for the record.

Senator BUSH. I was going to say, Mr. Chairman, Mr. Farnsworth came down with Mayor Carroll from Torrington. He specifically represents the Naugatuck Valley Flood Control Commission, and if he would say just a little, I am sure it would be appreciated.

STATEMENT OF SAMUEL FARNSWORTH, NAUGATUCK VALLEY FLOOD CONTROL COMMISSION

Mr. FARNSWORTH. Mr. Chairman, members of your committee, it has been my privilege to serve in Torrington, under Mayor Carroll, in the flood control commission. I have had close association with the Corps of Engineers for about 6 months, giving most of my time.

My chief job is chairman of the board of Torrington Manufacturing Co., and, as such, I also represent all the manufacturers in that area. And all I can say, and want to say, is that we thoroughly endorse the program of the Corps of Engineers, and we anxiously await the answer as to what may be done about it.

Thank you very much.

Senator KERR. Very good, sir.

Senator BUSH. Thank you very much, Mayor Carroll, and Mr. Farnsworth.

Now I would like to call on Emile Ryan, of the Winsted, Conn., Flood Control Commission, and ask Mayor P. Francis Hicks to come forward with him, please.

Gentlemen of the committee, I may say you probably recall Winsted, Conn., was perhaps the hardest hit of any of our Connecticut cities, and these gentlemen here, during that tragic period, showed a remarkable resourcefulness in meeting this emergency, which just couldn't be exaggerated as to the nature and danger of it, and the way it involved the lives and homes of so many people up there.

So I am very happy to introduce the mayor to this committee, and Bud Ryan is going to speak for the Winsted Flood Control Commission, and then perhaps Mayor Hicks will say a word or two.

STATEMENT OF EMILE RYAN, ON BEHALF OF THE WINSTED FLOOD CONTROL COMMISSION

Mr. RYAN. Mr. Chairman and members of this committee, I have a statement I would like to put on file, sir, with your permission.

Senator KERR. Very good. We will make it a part of the record.

(The statement is as follows:)

STATEMENT OF THE CITY OF WINSTED FLOOD AND EROSION CONTROL BOARD

The flood control and erosion control board of the city of Winsted was appointed in November 1955 under authority of Connecticut Public Act 509, consisting of five members. The purpose of this body is to study conditions throughout the area which have a bearing on the flood-control situation, making recommendations for the purpose of adequately controlling the watershed areas in an effort to prevent a repetition of the disastrous floods of August 1955.

The flood control board of the city of Winsted is vitally concerned with flood control on the Mad and Mill Rivers and Rugg Brook, and believes that a dry dam should be erected for the control of these streams and for the protection of the city.

This situation has been carefully studied by the New England division of the United States Army Corps of Engineers. As a result of this study, they have recommended strongly that such a dry dam be built for the purpose of safeguarding the city of Winsted.

The dam would be located about 1 mile above Winsted on the Mad River and would provide a substantial reduction in flood heights on the Mad and Still Rivers. The dam itself would be 940 feet long and 168 feet high. It would have a capacity of 9,600 acre-feet, which is the equivalent of 10 inches of runoff from a drainage area of 18.1 square miles. The top of the dam would be at elevation 988 mean sea level and the spillway at elevation 973.

Preliminary cost figures indicate that the structure would cost about $2,200,000 to construct. Relocations would amount to about $700,000 and lands and damages about $250,000.

Based upon study figures given to the board by the Army Corps of Engineers, taking into consideration the amount of water which swept through the city of Winsted from the above-named rivers during the August 19, 1955, flood, it has been determined that, had a dry dam of the capacity of the proposed dry dam been in existence at that time, flood damage in Winsted would have been 75 percent lower than actually resulted.

A great proportion of the widespread flood damage in the Farmington River Valley area was directly traceable to the vast quantities of water arriving from the Winsted watershed area. Any water impounded by a Winsted area dry dam would have a tremendous bearing on flood-control programs in the Farmington River Valley since there is a direct relationship between the two areas.

COST RESPONSIBILITY OF THE FEDERAL GOVERNMENT

The board strongly recommends that the cost of this project be borne by the Federal Government in the same manner as the Thomaston Dam which has already been authorized.

The reasons for this opinion are based upon the firm precedent that costs of such projects are borne by the Federal Government when the benefits are general. We see no reason for departure from this long established policy and practice.

Financial losses resulting from August 1955 flood in Winsted

1. Public property and facilities	$2,253,190
2. Private property and facilities	9,214,170
3. Private institutions and churches	52,000
Total loss	11,510,360

As a result of the flood, the city of Winsted lost $3,369,580 worth of taxable property, which equals 10 percent of the city's grand list.

It should be borne in mind when considering the date embodied in this statement that the only flood under discussion is the flood of August 19, 1955, and does not relate to other floods of recent years, such as September 1938, January 1950, October 1955, which, although not as catastrophic in extent, nevertheless did considerable damage in this area.

LOCAL PROJECTS NECESSARY AT THIS TIME

As of this date, a number of projects are underway, all of which are of a required nature, and all of which must be paid for by the local government with no expectation of any financial aid from any outside source.

Elementary school	$750,000
Municipal sewer construction	400,000
Relocation of Highland Lake Stream (part of the local flood-control program	350,000
Housing project (initial cost)	50,000
Total	1,550,000

PROPOSED LOCAL PROJECT FOR NEAR FUTURE

Relocation of sections of Mad River

Easements and real estate acquisition therefore are estimated at $150,000.

It can be readily seen from the above that the city of Winsted is committed to the expenditure of large sums of money from its own revenues and that, with such a prospect, the city is totally unable to undertake the financing from its own revenue sources of any such project as the proposed dry dam.

BENEFICIAL EFFECTS OF THE DRY DAM UPON THE COMMUNITY

The economy of the city of Winsted and its citizens is geared 100 percent to the industrial situation. The flood of August 19, 1955, completely destroyed, or terribly damaged, 11 manufacturing concerns. One concern never returned. The others, by incurring tremendous financial burdens, were able to resume their production. Needless to say, the prospect of future floods does not encourage investors or manufacturers to put money into industry in Winsted under present conditions.

The erection of a dry dam, as proposed, would result in an immediate upswing in the establishment and expansion of industry in this city. As an example, the industry which furnishes the largest payroll in the city of Winsted, following the flood, contemplated removing its entire operation to the Midwest. When the recommendation of the Army engineers for a dry dam was made public, this concern abandoned its plans for the move and started planning an expansion which would result in a doubling of its present facilities. This plant lies immediately east of the proposed site for the dam. What is true of the attitude of this particular industry can also be expected to apply to other manufacturers who might consider coming to Winsted.

Perhaps it is unnecessary to point out one of the very important results in the rebirth of a large industrial economy in this city; but sight must not be lost of the fact that such a healthy economy will result in great tax revenues, not only to the city of Winsted, but to the State and Federal Governments, as well; thus, in a sense, helping to allay the cost of the dam.

SUMMARY

While the greater part of this statement has been devoted to the financial aspects of flood control, there is an even greater consideration that bespeaks the

necessity of a strong safeguarding of ever-present and unpredictable forces of Nature.

In the 1955 flood, seven citizens of Winsted lost their lives to the raging torrents. Many more lives were lost in the Farmington River Valley, losses, again, directly traceable to water from this area. Unlike new tax sources which can be brought into being, these lives cannot be replaced. A fear psychosis has settled over the people of this area which is rekindled with each fall of rain. There is an overriding obligation on the part of civic and governmental leaders to protect the citizenry and to reinstill the peace of mind that is part of being an American.

It is the considered opinion of this board that, from all points of view, it is necessary to erect the proposed dry dam in order to restore to this community and its neighbors freedom from dislocation of its economy and freedom from potential injury or loss of life. For reasons outlined in other parts of this statement, it is felt that this is a project whose costs should be borne by the Federal Government with the benefits resulting to all concerned.

EMILE H. RYAN, *Chairman.*
JOSEPH W. ROSGEN, *Secretary.*
P. FRANCIS HICKS.
ARTHUR W. HAYES.
ROBERT MORGAN.

Dated at Winsted, Conn., July 12, 1956.

Mr. RYAN. I will make brief remarks, surrounding the statement, so as not to take too much time. I hope I never live again or as long to see a flood like August 19 in the city of Winsted nor the faces on the people who were the survivors of those who were lost in the flood, the many millions of dollars that were damaged, watching men, grown men with tears in their eyes as their life's work went down the river before them.

The future city of Winsted, economically, is definitely based on whether or not the Government sees fit to erect the so-called Mad River dry dam. The economics of the community is based entirely upon industry, the hope for the increasing amount of industry in the community, both with those who are there now, and the relocation of new industry, which is based entirely upon the creation of this Mad River dry dam.

It is unrealistic to assume that anybody in a community of that size, after witnessing the flood of August 19, would even consider enlarging their own business. The community committments for the future are considerable. And any committments brought upon them by the Federal Government or the Corps of Engineers for participation in this dam would be at this time very very bad.

Our assessed valuation was 50 percent loss. Our total income in taxes, is just a little bit more than what the real estate value would be in the dry dam area. I don't mean by that that we are a poor area. We have done I think a very good job by pulling ourselves up by our own bootstraps. It is a little hard to appreciate what we have done in a year, but we have done a good job. We do need some help with the dry dam and with the help of the dry dam and with our own courage that I have seen, I am certain that the city of Winsted in 5 years will be 25 years ahead of itself before the flood.

Thank you, Mr. Chairman, and members of the committee.

Senator BUSH. Thank you, Mr. Ryan. And Mayor Hicks, would you like to say a few words? We would like to hear from you, too.

STATEMENT OF P. FRANCIS HICKS

Mr. HICKS. Thank you, Senator, and Mr. Chairman, and committee members. The statements that Mr. Ryan and the chairman of our Flood and Erosion Control Board have just filed with the committee undoubtedly will express the complete story as far as Winsted is concerned. However, I would like to bring out the fact that inasmuch as my community was perhaps the hardest hit in total area, that speaking for the residents of my community, I hope that your committee will give us favorable consideration.

Thank you.

Senator KUCHEL. What was your monetary loss in corporate area?

Mr. RYAN. We had an entire business section for better than a mile just completely wiped out; 85 percent of our industry was hit.

Senator KUCHEL. Evaluation on that community or the amount of damage?

Senator KERR. The amount of actual damage in excess of 50 percent of the assessed valuation.

Mr. RYAN. $11,510,360.

Senator KERR. Actual damage to the total assessed valuation was something over $20 million.

Mr. RYAN. A million and a half of Main Street completely destroyed, and that was where our business area was. Most of the factories in Winsted like many old New England communities, because to many of the factories water power was essential, and it appears from what you said in another year we are going back to it again. They were adjacent to these rivers. The elevation of one of our large lakes, in a matter of a quarter of a mile, goes from 885 to 695, in elevation, in a short distance, where Winsted floodwaters were not of the midwestern type, of the rising waters, ours were of terrific turbulent type in a narrow area, and it moved, oh, bridges and beams. One particular beam I know that we weighed was 22 tons, and it moved it and practically tied it into a knot. The damage was done, just ravaging.

Senator BUSH. Mr. Chairman, I am glad Senator Kuchel asked that question. Of course what I say now is a matter of conjecture, I doubt that we have on the record any community which endured the destruction of such a high percentage of the assessed evaluation of that community. It is a remarkable figure that the Senator brought out there.

Senator MARTIN. Mr. Chairman, might I just ask: I am fully in sympathy. Have you given any consideration to a concrete trough, so that water can get through much more rapidly? That is what we have done in Johnstown, Pa., which had two, probably among the most destructive floods in America, and instead of dams, just simply a concrete trough, and we haven't had any trouble now, since 1936. I am just making the suggestion. I want to help you.

Mr. RYAN. We do have a projected plan on the so-called High Land Lake Stream on certain areas to put in high velocity concrete sluice troughs which handle a greater volume of water than natural earth or stone. That job, the town and city is committing roughly $350,000 of our own money which we don't have yet. We will have to borrow it.

We have to watch our bonded indebtedness, of course, and credit of

the community again will be based upon its ability to survive the future.

Senator BUSH. Of course, there has been work done on the river in the way of deepening it and widening it.

Mr. RYAN. Yes, sir; there has been, Senator Bush, temporary work done by the Corps of Engineers, a most excellent job, considering time and elements they had to work with.

Senator MARTIN. It is amazing what can be done about some things like that, that seem rather simple; the town of Brownsville, on the Monongahela River we were speaking about a moment ago, put in a project itself, I presume, it is away over 100 years ago, and it is right down in the river bottom, what we call in our country a river bottom, and they have not had any flood trouble whatsoever.

Now, of course, the Monongahela River had been locked for commercial purposes, which helped them quite a little, but there are just a lot of things like that, when you build a dam, and do not misunderstand, I am not objecting because we have to preserve our water, and yet at the same time, prevent floods, but a dam, takes many times a lot of very valuable real estate, very valuable.

Mr. RYAN. In relation to that, if I may make another remark, Mr. Chairman, the folks in the area, that own small homes, there are about 27 in the area that this dam would impound, and they are just as anxious to have the creation of the dam as the folks downstream. To them it is just a matter of when it is going to happen. But the interest, all I can say is if the Federal Government would help us as much as we are helping ourselves, with our industry we will get the money back to you in the next 50 years in income taxes.

Senator KERR. The chairman is a believer in that principle.

Mr. RYAN. Yes, sir. Thank you very much.

Senator BUSH. We are very grateful to both of you gentlemen from Winsted for coming down here.

Mr. Chairman, I have one more witness, Mr. Martin J. Ryan, chairman of the Port Development Commission, Bridgeport. Mr. Martin Ryan.

STATEMENT OF MARTIN J. RYAN, CHAIRMAN, PORT DEVELOPMENT, BRIDGEPORT HARBOR

Mr. RYAN. Mr. Chairman and committee members, I would like to supplement the remarks of Mr. Wise of the water policy commission. We bring in to Bridgeport Harbor about 200 big ships a year. They draw 29 feet to 31 feet. We have a 30-foot channel, which obviously means that we have to hold these ships out in Long Island Sound until the tide is on the make, or at the top of the tide.

Now, I also happen to be the president of an oil company. We operate a public oil terminal with 70 million gallon storage. The cost of a T–2 tanker headed outside costs $2,500 a day. Now the T–2 tanker is becoming obsolete.

Senator KERR. On account of it is too small?

Mr. RYAN. That is right, sir. The Military Sea Transport Service has a trading program for 32,000-ton tankers which has a carrying capacity of 10 million gallons against 5 million of the T–2. So we are faced for the past 9 years of holding these ships on the outside at great expense.

Now the products carried by these ships are coal, oil, steel, and lumber, and incidentally, the dredging of the channel to 35 feet is not merely a local project. We ship lumber and oil to western Massachusetts, Long Island, New York, and we could have a great area. Therefore, we request that we get the 35-foot channel for the city of Bridgeport.

Senator MARTIN. What is it now?

Mr. RYAN. 30-foot channel. Incidentally, the power station of the United Illuminating Co. for the past year has been constructing a $14 million plant which is going to require deep water. They will need every part of a 35-foot channel. Another part of the project is for a breakwater in the Black Rock area, and small anchorage for small boats in the various streams.

I appreciate very much the opportunity to be heard.

Senator BUSH. Thank you very much, Mr. Ryan. I am sure the committee appreciates your coming down to help us.

Senator MARTIN. I would like to make this comment. This pattern of deepening the channel is not only beneficial to that local community, but to the whole eastern seaboard. I would just like to make that comment. That is a thing, Mr. Chairman, that I am afraid, and I am cautious about this statement, I am just afraid we have not set our sights high enough. Just in the last few months New York, Philadelphia, and Baltimore and all of the harbors on the east, are just having all sorts of trouble bringing these large ships in, the European ships. They are making them bigger all the time and that means it requires a deeper channel, and it is a big problem confronting us. I hate to bring it up, because it is an enormous problem, but our country is growing so rapidly in so many different ways, that we have just those big problems confronting us. We do not have to settle them today, but we, if we are going to make the right solution, we have to begin to think about them.

Senator BUSH. Yes, sir.

Mr. RYAN. I might say that the Government has a program on now of taking in the 10- to 12-million-gallon ships. You have practically the same operating costs on hauling 10 million gallons as you have 5 million gallons except for capital investment and those are for the coastwise ships.

Senator BUSH. Thank you very much, Mr. Ryan.

That concludes the Connecticut witnesses.

Senator KERR. Very good. Now the other matters we have here were set for this afternoon. We may go ahead and get to them in a little while, but if we may have the indulgence of the Corps of Engineers, there are two matters which I would like for the committee to look at briefly.

(Discussion off the record.)

Senator KERR. Senator Bush, I have been handed a statement from Senator Purtell with reference to the Connecticut projects. Would you like to insert this in the record at the appropriate place?

Senator BUSH. Yes; if the chairman approves. I certainly think it should be inserted at the appropriate place, following the testimony of the Connecticut witnesses.

(The statement is as follows:)

STATEMENT OF HON. WILLIAM A. PURTELL, A UNITED STATES SENATOR FROM THE STATE OF CONNECTICUT

STATEMENT BY SENATOR WILLIAM A. PURTELL OF CONNECTICUT

Mr. Chairman, I very much appreciate the opportunity to appear before you today to add my urgent plea to that of others interested not only in the welfare of the people of the New England area, and the State of Connecticut in particular, but in a great measure responsible for the well-being of those people.

I do not propose to burden you with a recitation of a description of the projects under consideration or the technical details applying thereto. There are those who will testify, if they have not already done so, who are experts in their field, who have witnessed the ravages of the 1955 floods, who have studied the local situation, and who are authoritatively presenting their recommendations for the modification of existing projects and their views with respect to new projects designed to plug the gaps in the proposed flood control system, which were disclosed by the 1955 disasters.

I hope, Mr. Chairman, that you will lend a sympathetic ear to the recommendations offered here today and favorably act upon the proposed dams and other major projects included in the accelerated northeastern program. I ask that you also give serious consideration to the urgent need for small flood protective works in our region.

Needless to say, I also lend my support to the beach erosion control and harbor improvement items under consideration today. I hope that favorable action may be taken on all of the projects presented.

TORRINGTON, CONN., *July 14, 1956.*

Senator DENNIS CHAVEZ,
Chairman, Senate Public Works Committee,
Senate Office Building, Washington, D. C.

DEAR SIR: In relation to the hearings that are scheduled to be held by your committee on the omnibus public works bill that includes flood projects in Connecticut, may we draw to your attention a matter both relevant and material which is as follows:

The residents of the areas proposed for the dry dam flood projects in both the Hall Meadow and Newfield sections of Torrington are drawing up a petition in opposition to the above projects. It is expected that 95 percent of the residents will sign for the following reasons:

1. The project is not necessary because the area is not flood prone. The August flood was the only one in memory of living man.

2. The condemnation of homes and farms will result in irreparable loss and hardship for which no amount of money can compensate. That is the way we feel about our land.

3. Most of the areas below us spent a great deal of Federal money cleaning the channels of the river, condemning land and widening the river and completing other projects for the protection of the lower part of the Naugatuck Valley. Besides that, there are areas that are uninhabited that are suitable for dry dams notably south of Torrington and north of Waterbury.

4. Though we are approximately only 1 month away from the hurricane season, none of the residents in Torrington or south of us plan to leave their homes. They regard the flood of last August a freak and not likely to be repeated.

Yours very truly,

THE SOUTH CENTRAL PROPERTY OWNERS,
PROTECTIVE ASSOCIATION, INC.,
CHARLES W. FOSTER.
ALMA F. ANDERSON.
WILHELMINE SPARROW.

P. S.—We feel not only our right but a public duty to aid all people in the protection of their homes which is one of the purposes of the articles in our corporation.

Senator BUSH. I have a list of proposed amendments to H. R. 12080 that I would like placed in the record.

Senator KERR. That will be done.

(The matter referred to above is as follows:)

PROPOSED AMENDMENTS TO H. R. 12080

On page 19, in line 2, insert after the word "Massachusetts", the following: "and construction of the Mad River Dam and Reservoir on the Mad River above Winsted, Connecticut."

On page 19, in line 3, after the word "Engineers", strike out the period and insert the following:

": *Provided*, That the Federal Government shall acquire the necessary lands and rights-of-way and maintain and operate the projects after completion."

On page 19, after line 3, insert the following:

"NAUGATUCK RIVER BASIN, CONNECTICUT

"The projects for the flood-control dam and reservoir on Hall Meadow Brook in Torrington and Goshen, Connecticut, at an estimated cost of $2,430,000; and for the dam and reservoir on the East Branch of the Naugatuck River in Torrington, Connecticut, at an estimated cost of $2,670,000; are hereby authorized in accordance with the plans to be prepared by the Chief of Engineers: *Provided*, That the Federal Government shall acquire the necessary lands and rights-of-way and maintain and operate the projects after completion."

On page 2, insert following line 10:

"Bridgeport Harbor, Connecticut: Report of the Board of Engineers for Rivers and Harbors, dated June 19, 1956, at an estimated cost of $2,076,000."

On page 15, insert following line 21:

"Sachem's Head Harbor at Guilford, Connecticut."

Senator KERR. Connecticut River Basin and adjacent streams.

Major General ITSCHNER. Mr. Page will testify on this project.

STATEMENT OF CARTER PAGE, CORPS OF ENGINEERS

Mr. PAGE. Mr. Chairman, my name is Carter Page.

Mr. Chairman, in view of the fact that these projects in Connecticut were investigated since the 1955 flood, and our New England group has worked desperately trying to get these reports before the Congress, we do not have a map to show you these projects, but I believe that the presentation made by the representatives from Connecticut, and the cities of Winsted and Torrington, have given you a good picture of the problem there.

So, my statement I think can be very brief. I would like to confirm what the representatives of Connecticut and these cities have said about the seriousness of this flood problem. I think they did not overstate the situation at all. I believe that I can cover all of these projects in one statement.

Torrington is located on the Naugatuck River in Naugatuck Valley in western Connecticut, a very highly industrialized area. There was $23 million worth of damage in the Torrington, Harwinton, and Litchfield area in 1955. Our plan for protection involves two reservoirs: One, Hall Meadow Brook Dam, and one on the East Branch of the Naugatuck, which join in the city of Torrington.

The Hall Meadow Brook would be 55 feet high. The East Branch Dam, 95 feet.

Senator KERR. Is there any power in either of them?

Mr. PAGE. No, sir, neither of these have power. They are both dry flood-control dams.

Senator HRUSKA. Mr. Page, if it will not interrupt you too much, the dry-dam business is where there is no permanent retention of water; is that correct?

Mr. PAGE. Yes, sir.

Senator KERR. Only flood-control pool with no continuing planning for power or municipal power or other purposes.

Senator HRUSKA. Similar to the dams on the Miami River in the Ohio Valley?

Mr. PAGE. Almost identical.

Senator HRUSKA. Simply the regulation of any excess water that might come along at any one time?

Mr. PAGE. That is right. They have no permanent pools at all.

Senator HRUSKA. And one further thing, the lands above the dam are continued in use by the owners thereof. There are just flowage easements on them?

Mr. PAGE. These dams would involve part flowage. I think that for lands above the 5-year flood frequency we would acquire flowage, under our present real-estate policy, below that level the land would be purchased in fee.

Senator HRUSKA. Thank you.

Mr. PAGE. The Hall Meadow Brook Dam has a capacity of 7,200 acre-feet. The East Branch Dam would be somewhat smaller with a capacity of 4,100 acre-feet.

Senator KERR. Which one is above Winsted?

Mr. PAGE. Both of these, sir, are above Torrington.

Senator KERR. I see.

Mr. PAGE. I am speaking only of Torrington now.

Senator KERR. Very good.

Mr. PAGE. The Hall Meadow Brook Dam will have a total cost of $2,420,000. The East Branch Dam will have a total cost of $2,670,000.

Senator KERR. Do those figures include cost of the reservoir site?

Mr. PAGE. They include total cost, the reservoir site is included.

Both dams are well justified economically. There is a benefit-cost ratio of 2.4 for the Hall Meadow Brook Dam and a ratio of 1.3 for East Branch Dam and they are recommended in our report.

I might say that these reports are still before the Board of Engineers of Rivers and Harbors for review. However, we felt that present stage of planning was quite adequate for us to testify on them before this committee.

The recommendation of the division engineer is for construction of the dams with contribution of lands, easements, and rights-of-way by non-Federal interests and operation by non-Federal interests.

Senator KERR. May I ask at this point if that recommendation is based upon initiative by the Corps of Engineers as being consistent with the long-time policy of the corps or is it the result of A–47 issued by the executive branch in December 1942 and subsequent records of the budget are consistent therewith or in addition thereto?

Mr. PAGE. Senator Kerr, I do not believe that it was actually influenced to any extent by A–47. As you know, that involved local contribution where land-enhancement benefits were involved. That factor was not present here.

Senator KERR. What I am trying to find out is how it happened that the Corps of Engineers, if they, on their initiative, did make the recommendation of this rather large local participation in the cost of the project?

Mr. PAGE. I think I can explain that.

Senator KERR. Very good.

Mr. PAGE. As Mr. Brennan pointed out previously, there have been a number of cases where we have recommended reserviors, which we thought performed essentially the same function as local flood-protection work or where they protected a fairly concentrated area.

Senator KERR. I wonder if you would give us, for the record, a tabulation of those projects?

Mr. PAGE. We will be glad to furnish that, sir. I do not have it.

(The information referred to is as follows:)

LIST OF FLOOD-CONTROL RESERVOIRS REQUIRING LOCAL COOPERATION

Several flood-control reservoirs recommended or authorized for construction by the Corps of Engineers are alternatives to local-protection improvements, and require local interests to provide one or more of the standard items of cooperation required by law for local protection. These basic requirements are provision of lands, easements, and rights-of-way, including certain relocations when necessary, hold and save the United States free from damages due to the construction works, and operation and maintenance of the project after construction. Data on pertinent reservoirs follow:

Flood-control dams and reservoirs requiring local cooperation

Name of reservoir	Location		Authorizing act	Document No. and Congress	Estimated costs (thousands)			Local cooperation
	Stream	Locality protected			Federal	Non-Federal	Total	
Two Rivers	Rio Hondo	Roswell, N. Mex	Sept. 3, 1954	H. 436, 83d Cong	$6,280	$127.0	$6,407.0	(1 2 3)
Bear Creek	Bear Creek	Hannibal, Mo	do	H. 435, 83d Cong	3,570	157.0	3,727.0	(1 2 4 5)
Eau Galle	Eau Galle River	Spring Valley, Wis	Pending, 1956	S. 52, 84th Cong	6,690	544.7	7,234.7	(1 2 4 6)
4 small detention reservoirs	Gering Valley	Gering-Mitchell Valleys	do		1,214	56.0	1,270.0	(1 4 7)
Diversion dam, diversion channel, and levee.	Chena River	Fairbanks, Alaska	do	H. 137, 84th Cong	9,727	840.0	10,567.0	(1 8)

[1] Furnish lands, easements, and rights-of-way.
[2] Hold and save the United States free from damages.
[3] Also provide all-weather access road and assure maintenance thereof; maintain present channel capacities in specified limits of Rio Hondo and Rocky Arroyo.
[4] Operate and maintain after construction.
[5] Including all necessary relocations except railroads within and immediately downstream from reservoir; and prevent construction of buildings, artificial fills, or other obstructions within city limits, which in the opinion of the Chief of Engineers, would reduce channel capacity.
[6] Also make all necessary highway, bridge, and utility changes; maintain all channel improvement works; prevent encroachment in flood channels; regulate construction of bridges and other structures crossing channels.
[7] Also accomplish all highway bridge construction and alterations except raising, and all relocations; make specified irrigation canal improvements and improve irrigation and cropping practices; control erosion in drains.
[8] Also make cash contribution of 3.5 percent of total cost; contribute $30,000 annually toward operation and maintenance.

Senator KERR. Is it a fact that they constitute what might be described as an infinitesimal percentage of the total amount of flood-control work that has been done by the corps in the last 20 years?

Mr. PAGE. Yes, sir; that is correct.

Senator KERR. What percent would the total cost of those projects be of the total flood-control operation or cost to the corps of the projects that they have built in that time?

Mr. PAGE. It will be very small, Senator. I should say, certainly, it is less than 1 percent.

Senator KERR. In other words, then, the projects with reference to which recommendation has been made for local participation, in the cost of the project, have a total value of probably less than 1 percent of the total flood-control projects constructed by the corps?

Mr. PAGE. Well, Senator, if you limit that to reservoirs for which we have required local cooperation of this kind; yes, sir.

Senator KERR. Very well.

Senator BUSH. That is a question I was going to raise. Really, the question at issue here involves reservoirs?

Mr. PAGE. That is correct.

Senator BUSH. And is there any precedent for the kind of local participation that is recommended here in connection with a reservoir for the purposes that these three reservoirs are proposed?

Mr. PAGE. Yes, sir; there is. There have been precedents. We have made similar recommendations in other cases.

Senator KERR. I have asked him to put into the record any precedents that exist.

Senator BUSH. Yes, sir. I offer that too, but I just had the impression that it was almost unprecedent if not entirely unprecedent in a local case like this that local participation had been suggested.

Senator KERR. He has said there was precedent but that the total cost of the cases in which precedent could be found, similar to this, would be less than 1 percent of the cost of the construction by the corps for similar projects.

Senator BUSH. I heard him say that it was almost infinitesimal. I have not been able to find out any.

Senator HRUSKA. Mr. Page, had you completed your explanation as to why this computation for non-Federal contribution was used in this instance?

Mr. PAGE. There is one other factor which I think Senator Kerr mentioned, that is the passage of Public Law 566, which involves construction of relatively small reservoirs. Under our instructions to coordinate our work with that of the Department of Agriculture under Public Law 566, the Chief of Engineers issued instructions to his field officers that where we became involved in reservoirs of small size, we would try to secure somewhat similar cooperation as that required by the Secretary of Agriculture.

Senator HRUSKA. And is that pursuant to general policy as to all projects which you have worked out since the passage of Public Law 566?

Mr. PAGE. We are following that policy and have followed it since the passage of 566.

Senator KERR. Now, if the Congress repeals that part of Public Law 566, then that basis for the policy would be gone; would it not?

Mr. PAGE. That is correct, sir.

Senator HRUSKA. And in Public Law 566, however, as the amendment now pending before this committee, there is no repeal of that particular part. In fact, there is a reaffirmation thereof.

Senator KERR. Are there further questions of this witness?

Mr. PAGE. I have not mentioned the Winsted project.

Senator KERR. That is fine. You can then go to the Winsted project and then Bridgeport.

Mr. PAGE. The Winsted project involves construction of one dam on the Mad River.

Senator KERR. What is the size?

Mr. PAGE. That is 9,630 acre-feet. The total cost would be $5,820,000, and benefit-cost ratio is 1.2. The project is well justified. We believe that it will be of great value to the city of Winsted, which suffered losses of $18 million during the 1955 flood.

Their requirements of local cooperation are contained in our recommendation and are similar in principle to those which I have mentioned for the Torrington project.

Senator BUSH. Now, this is the same type of dam as Littleville Dam just above it; is it not?

Mr. PAGE. Yes, sir.

Senator BUSH. I fail to see any reason why there should be local participation here rather than in Littleville.

Senator HRUSKA. This dam is larger.

Senator BUSH. The Littleville Dam is much larger, I believe.

Mr. PAGE. Just about the same size.

Senator BUSH. I thought Littleville Dam was larger?

Mr. PAGE. It does appear inconsistent, sir, and about all I can say is that we considered that the effect of Littleville Dam extended over a wider area.[1]

Senator BUSH. I do not know what Littleville's extent is, but I will say that the dam up here is designed to protect not only the town of Torrington, but the areas below it, which were very much devastated by that flood, all the way down to Torrington itself, between Winsted and Torrington, and it is not just a very limited area that this dam will afford protection to, but it is quite extensive downstream.

Mr. PAGE. Senator, I might mention that in making the recommendation, we hesitated quite a bit because we realize that both of these cities have suffered terrific damage and we knew that they felt that they could not well support additional monetary contributions. We also knew that they had put up substantial sums themselves, so that our recommendation was made on the basis of what we considered the ground rules to be, but realizing that perhaps there is a matter of equity in this case.

REVIEW REPORT FOR FLOOD CONTROL, MAD RIVER DAM AND RESERVOIR, MAD RIVER, CONN.

INTERIM REPORT

Location.—The Mad River rises in northern Connecticut, with its source at Spaulding Pond, and flows in a southeasterly direction through Winsted, Conn., to its confluence with Still River near the southeast edge of the city.

[1] The following information was furnished by the Corps of Engineers to clarify the record:

"Senator Bush was correct. The Littleville Dam is considerably larger than that for Mad River above Winsted. The proposed capacities are: Littleville, 23,600 acre-feet; and Mad River, 9,630 acre-feet."

Report authorized by.—Senate Committee on Public Works, September 14, 1955.

Existing project.—A channel improvement project on Mad River in the city of Winsted was constructed by the Corps of Engineers between May 1950 and October 1951. This project, a unit of the comprehensive plan for flood control and other purposes in the Connecticut River Basin, as authorized by the Flood Control Act approved June 22, 1956, as amended, was authorized by the Flood Control Act approved August 18, 1941.

Plan of recommended improvement.—Provides for a dam and reservoir on the Mad River for the protection of Winsted. The dam will control a drainage area of about 18.2 square miles and is located in the town of Winchester, Conn., about 2.2 miles above the confluence with the Still River and about 0.3 mile northwest of the city of Winsted. The project would consist of a rolled earth-fill dam (168 feet high, about 1,040 feet long) across the Mad River and 2 dikes across saddles located on the left bank north of the dam. The capacity of the reservoir at spillway-crest elevation of 973 feet, mean sea level, would be 9,630 acre-feet. The project would require acquisition of about 282 acres of land, 46 buildings, and relocation of about 2.3 miles of United States highway and 2.3 miles of utilities along this highway.

Estimated cost, proposed Mad River Dam and Reservoir (1956 price level)

Federal	$5,430,000
Non-Federal	390,000
Total	5,820,000

Location cooperation.—To provide all lands and rights-of-way necessary for construction and operation of the project and to maintain the project after completion.

Project economics (1956 price level)

	Current
Annual charges	$212,000
Annual benefits	$263,000
Benefit-cost ratio	1.2 to 1

INTERIM REVIEW REPORT FOR FLOOD CONTROL, UPPER NAUGATUCK RIVER ABOVE TORRINGTON, CONN., HOUSATONIC RIVER BASIN

Location.—The Naugatuck River, a tributary of the Housatonic, lies wholly within the western part of Connecticut. The headwaters lie about 6 miles south of the Massachusetts line in the southeast corner of the town of Norfolk. The general direction of flow is southerly to Derby where it joins the Housatonic in its tidal reach about 12.25 miles from Long Island Sound.

Report authorized by.—Senate Public Works Committee resolution, adopted September 14, 1955.

Existing project.—There are no existing Corps of Engineers' flood-control or local protection works in the Naugatuck River watershed above Torrington, Conn. The only authorized project in the basin is the Thomaston flood-control dam and reservoir located in the town of Thomaston, downstream from Torrington.

Plan of recommended improvement.—Consists of construction of two flood-control dams and reservoirs in the city of Torrington.

The Hall Meadow Brook Dam and Reservoir is located on Hall Meadow Brook 0.4 mile above its confluence with the West Branch of the Naugatuck River. The project would consist of a rolled earth-fill dam 55 feet high and 1,080 feet long with a spillway located in a saddle in the left abutment. The capacity of the reservoir at spillway-crest elevation would be 7,200 acre-feet. This project would require acquisition of approximately 465 acres of land and 17 sets of buildings and relocation of about 2.3 miles of secondary highway and 3 miles of utilities.

East Branch Dam and Reservoir is located on the East Branch of the Naugatuck River, 3 miles above its confluence with the West Branch. The project would consist of a rolled earth-fill dam 95 feet high and 886 feet long with a side-channel spillway in the right abutment of the dam. The capacity of the reservoir at spillway-crest elevation would be 5,150 acre-feet. The project will require

acquisition of about 235 acres of land and 47 sets of buildings and relocation of 2 miles of a secondary highway and 3 miles of utilities.

Estimated cost (1956 price level)

	Federal	Non-Federal	Total
Hall Meadow Brook Dam and Reservoir	$1,960,000	$460,000	$2,420,000
East Branch Dan and Reservoir	1,780,000	890,000	2,670,000

Local cooperation.—Furnish all lands and rights-of-way necessary for construction and operation of the projects and to maintain after completion.

Project economics

	Hall Meadow Brook	East Branch
Annual charges:		
Federal	$71,000	$64,000
Non-Federal	29,000	38,000
Total	100,000	102,000
Annual benefits	244,000	128,000
Benefit-cost ratio	2.4 to 1	1.3 to 1

Senator KERR. Bridgeport, Conn.

STATEMENT OF JOHN ANDERSON, CORPS OF ENGINEERS

Mr. ANDERSON. This report was prepared in accordance with a resolution of this committee. Bridgeport Harbor is located on the shores of Long Island Sound, about 60 miles east of New York City.

The existing project provides for a channel from deep water in Long Island Sound into the harbor of 30-foot depth with breakwaters at harbor entrance, with turning basin of 18-foot depth here [indicating] and anchorage basins of 25-foot depth at this location [indicating], and channel to Black Rock Harbor, 18 feet deep, channels extending into Poquonook River, 18 feet deep; into Yellow Mill Pond of 18 feet deep, and into Johnsons River, 15 feet deep.

Senator KERR. What is the present depth of the channel?

Mr. ANDERSON. Thirty feet in the main ship channel.

Senator KERR. Is the proposal to deepen below that?

Mr. ANDERSON. Local interests requested deepening the channel to 35 because vessels are larger with drafts in excess of 29 feet and have to await favorable tides to go into the harbor. Most of the vessels are 29- to 31-foot draft and they require additional channel depth or must await favorable tides.

The tide in this area is about 7 feet, so they wait until the tide is on the rise and then go into the harbor. They have requested protection of the channel of Black Rock Harbor. Storms from southeast and southwest make it very dangerous for the smaller craft in the harbor.

They also requested anchorage areas for Johnson River, anchorage in Black Rock Harbor and extension of the anchorage in the main harbor channel.

There are 39 commercial piers and dock facilities in these harbors. The River and Harbor Board has completed its review of this report and recommends that the existing 30-foot channel be deepened to 35

feet and that these anchorage areas be dredged to 6 feet [indicating on the map].

Senator KERR. That is, the auxiliary channels be deepened to that depth which correspond to the 35-foot depth of the main channel?

Mr. ANDERSON. No; the auxiliary channels do not go any deeper. The recommended project provides anchorage for smaller craft; anchorage in the Johnson River and anchorage in Black Rock Harbor to 6-foot depth.

Also, the Board recommended breakwaters to protect the entrance to Black Rock Harbor because of the strong winds and currents which are dangerous to the small craft.

Senator KERR. Are there any questions of Mr. Anderson on this project?

Mr. ANDERSON. Do you want me to give the cost? The estimated Federal cost based on July 1956 prices is $2,290,000 for new work. Non-Federal costs are $530,000, including $465,000 cash contribution. All work is subject to local interest furnishing land easements and rights-of-way and hold and save the United States free of damage, including damage to oyster beds.

Annual benefits to the main ship channel are $219,500, and the annual charges are $73,400, giving a benefit-cost ratio of 3.0, for Black Rock Harbor the annual benefits are $44,700, and the annual charges are $34,500, giving a benefit-cost ratio of 1.3; for the anchorage basins in Johnsons River, the annual benefits are $3,700; annual charges are $2,400, and the benefit cost ratio is 1.5.

The report was submitted to the Governor on the 29th of June 1956, for his official comments, and as soon as they are received, the report will be processed to the Bureau of the Budget and finally to Congress.

Senator KERR. Thank you very much, Mr. Anderson.

BRIDGEPORT HARBOR, CONN.

Survey (Review of Reports) dated February 24, 1956

Location.—Bridgewater Harbor, Conn., is on the northern shore of Long Island Sound about 60 miles east of New York City.

Report authorized by.—Resolutions of Committee on Public Works, United States Senate, April 20, 1948; and July 20, 1954; and House Committee on Public Works, March 15, 1949.

Existing project.—Provides 2 outer main harbor breakwaters; a sea wall on Fayerweather Island; a 30-foot main channel and turning basin; a 25-foot and an 18-foot anchorage in the main harbor; 18-foot channels in the Poquonock River, Yellow Mill Pond, and in Black Rock Harbor and Cedar Creek; a 15-foot and 9-foot channel in Johnsons River; and a 7-foot channel in Burr Creek. The existing project is completed.

Plan of recommended improvement.—Recommends deepening the main channel and turning basin to 35 feet, construction of breakwaters at the entrance of Black Rock Harbor, and dredging of 6-foot anchorages in Burr and Cedar Creeks and upper Johnsons River and 6- and 9-foot anchorages in lower Johnsons River, and abandon the Burr Creek channel.

Estimated cost

	Federal	Non-Federal	Total
Main harbor	$1,900,000	$30,000	$1,930,000
Black Rock Harbor including Burr and Cedar Creek anchorages	370,000	480,000	850,000
Johnsons River upper and lower anchorages	20,000	10,000	30,000
Total	2,290,000	530,000	2,810,000

In addition to above costs, local interests are required to provide 4 public landings, and berth and wharf improvements at a total estimated cost of $50,000.

Local cooperation.—Provide all necessary berth improvements, suitable disposal for materials hydraulically dredged from the inner main channel and turning basin, 52 percent of the cost of the Black Rock Breakwaters now estimated at $300,000, 66 percent of the cost of the Burr and Cedar Creek anchorages now estimated at $155,000, 45 percent of the cost of the Upper Johnsons River anchorage now estimated at $10,000, public landings at 4 locations, improvements to make the shore of the Burr and Cedar Creek anchorages suitable for recreational use, all lands, easements, and rights-of-way necessary for construction and subsequent maintenance, when and as required, and hold and save the United States free from all claims for damages resulting from improvements, including such damage as may occur to oyster beds.

Project economics

	Current estimate
Annual charges:	
Main Harbor	$73,400
Black Rock Harbor, including Burr and Cedar Creek anchorages	34,500
Johnsons River upper and lower anchorages	2,400
Annual benefits:	
Main Harbor:	
Reduction in tidal delay	53,500
Reduction in transportation cost	166,000
	219,500
Black Rock Harbor, including Burr and Cedar Creek anchorages:	
Increased use of existing recreational fleet	8,000
Additional new boats	26,500
Boats transferred	5,200
Reduction in storm damages	5,000
	44,700
Johnsons River upper and lower anchorages:	
Increased use of recreational fleet	600
Additional new boats	3,000
Boats transferred	100
	3,700
Benefit-cost ratio:	
Main Harbor	3.0
Black Rock Harbor, including Burr and Cedar Creek anchorages	1.3
Johnsons River upper and lower anchorages	1.5

Senator KERR. Now, I see that the distinguished Senators from Alabama are here. They have statements first on the Warrior and Tombigbee, and second, Alabama River. At this point we will hear testimony on those two. Then, if Senator Hickenlooper is here we will go to this project and then come back to Army engineers.

Senator Hill?

STATEMENT OF HON. LISTER HILL, A UNITED STATES SENATOR FROM THE STATE OF ALABAMA

Senator HILL. Thank you, Mr. Chairman.

Mr. Chairman, I have a statement here that I hope gives a full picture.

I wish to speak in support of the plan recommended by the Chief of Engineers for improvement of the headwaters of the Warrior

River. The plan of recomended improvement provides for approval of the ultimate plan for the Warrior River Basin, and authorization of the New Hope Dam and Reservoir and the powerplant at dam 17, substantially in accordance with the plans of the Chief of Engineers and with such modifications as he may deem advisable; the authorized work to be prosecuted by the Federal Government under the direction of the Secretary of the Army and the supervision of the Chief of Engineers, or by non-Federal interests under a license issued by the Federal Power Commission.

Comprehensive programs have been adopted for the Apalachicola-Chattahoochee-Flint River system in the eastern part of the State, and for the Alabama-Coosa River system in the central area. The former is under construction and we hope that the latter project will be initiated at an early date. Mobile Harbor has been improved for navigation, and the Gulf Intracoastal Waterway and the Warrior River system has been developed for shallow-draft navigation. The Tennessee Valley area in the northern part of the State has also been extensively developed for flood control, navigation, hydroelectric power, recreation, and allied purposes. Early completion of the recommended projects in the Warrior River Basin will round out the water-resource developments in Alabama for the present. As time goes on, additional work, particularly soil-conservation and water-flow-retardation measures in the upland areas, will be needed.

The upper Warrior River region covers parts of 11 of the 67 counties in Alabama. These 11 counties contain 14 percent of the area of the State. The total population of these counties was 923,000 in 1950, an increase of about 12 percent from 1940. The area contains 30 percent of the population of the State.

Agriculture predominates over most of the tributary area, although parts are highly industrialized and some sections are devoted to logging and mining. Industry along the Warrior River has grown considerably in recent years. During 1951, the tonnage that moved on the Warrior-Tombigbee Waterway totaled 2,713,000 tons, an increase of 24 percent during the last 10 years. During 1954 the tonnage was in excess of 3 million tons.

About 60 percent of the basin is woodland and 40 percent cleared; 533,000 persons live in urban areas and depend on industrial activities for their livelihood. Value of farm products in 1949 was $41,222,000. In the Birmingham-Bessemer area production of iron and steel is the major industry, due to the presence of iron ore, coal, and limestone in the vicinity. In 1949, 3,665,000 tons of pig iron were produced.

Many fabricating plants are located near the steel mills. Their products consist of coke, slag, cast-iron pipe, steel pipe, wire, cement, chemicals, brick, and tile. Around Tuscaloosa refined petroleum products, asphalt, pulp and paper, auto tires, and chemicals are produced. Cement and lumber are produced at Demopolis. Sawmills, veneer plants, box factories, and clothing factories are scattered throughout the basin.

The Warrior River Basin includes the richest mineral-bearing area in the southeastern part of the United States. Principal minerals in the area consist of iron ore, coal, lime, limestone, sand, and gravel.

A network of good highways connects the principal population centers of the basin, and improved roads lead to the agricultural districts. Railroads in the area converge on Birmingham, except the

smaller lines that serve isolated mines and areas. Port Birmingham is connected by a 20-mile railroad to Birmingham. The port is located near the head of the Black Warrior and Tombigbee Waterway, which provides a 9-foot channel outlet to the sea at Mobile. Complete towing and barge service is available. Principal commodities handled are iron ore, iron and steel products, coal, crude oil, gasoline, logs, pulpwood, limestone, and packaged freight. An increase in iron-ore shipments is expected shortly with the completion of a new terminal at Mobile to handle South American ores. Completion of the authorized waterway to connect the Tombigbee River to the Tennessee River will provide ready access by water to the Midwest.

The basin is a large user of electric power. The 320,000-kilowatt Gorgas steam plant of the Alabama Power Co. is located on Mulberry Fork. Other power is obtained from hydroelectric plants in the Coosa River Basin to the east, and from the Tennessee Valley Authority to the north.

Water supply in many parts of the basin has been critical in recent years because of increased industrial activity. In general, communities in the southern part of the basin obtain their water supply from shallow wells, while those in the north utilize surface sources. Industrial water for the Birmingham area is obtained from Inland Reservoir on Blackburn Fork, 25 miles north of the city. The city is now searching for additional sources for industrial water supply. Tuscaloosa obtains its domestic water supply from Yellow Creek and industrial water generally from the Warrior River.

The most serious stream pollution in the basin comes from the Birmingham and Tuscaloosa areas. Domestic and industrial wastes are discharged directly into the Warrior River without treatment at Tuscaloosa, with a population of 91,000, and during periods of low flow a very bad condition is created. Treated domestic and industrial wastes from the Birmingham area are discharged into small tributaries, but flushing of sludge during heavy rains adds to the pollution problem on the main streams.

From this discussion, it can be seen that the headwater area of the Warrior River Basin is a populous, well-developed region, rich in mineral, and other resources, and is the major industrial center of the entire South. The industrial activity is increasing, bringing with it a large increase in population. In addition to the needs for flood control throughout the entire valley and the modernization of the navigation project between Mobile and the port of Birmingham, there is further need for additional electric power, municipal and industrial water supply, abatement of stream pollution, and conservation of water for recreational purposes.

The plan recommended by the Corps of Engineers will provide for many of the needs of the basin. Its authorization at an early date will permit the people of the valley to plan their future lives with the promise of greater security. Construction of the recommended projects in an orderly manner by steps will permit full development of the water resources of the basin, and assist in the development of the mineral and other natural resources.

Floods on the Warrior River average about three each year. In the upper reaches they are somewhat flashy, but remain for prolonged periods in the lower reaches and cause considerable damage. The only

method of providing adequate flood control is by use of reservoirs on the mountain tributaries in the upper reaches. Reservoirs in that area will not inundate extensive farmlands, and will not upset the economic conditions of the area.

Approximately 40 percent of the 220,000 acres subject to flooding is cleared land, but most of the remaining wooded land is very rich and can be placed in cultivation if the flood hazard is removed. Parts of Tuscaloosa and Northport are in the flooded area and suffer damage. Some industries have expanded into the flood plain to take advantage of the waterway. Main highways and railroads have been elevated above all but extreme flood stages, but many miles of secondary highways are frequently flooded. The average annual flood losses in the basin will approximate $1 million. Construction and operation of the improvements recommended by the district engineer will largely eliminate these flood losses, and permit better land use in the valley.

The Warrior River navigation system is now undergoing a modernization program. Locks 10, 11, and 12 have been replaced by the Tuscaloosa lock and dam. The Demopolis lock and dam, now under construction will replace locks 4, 5, 6, and 7. The Warrior lock and dam will replace locks 8 and 9; locks 1, 2, and 3 will be replaced by the Jackson lock and dam; and a new lock 13 will eliminate the present locks 13, 14, 15, and 16. As this program progresses, a water supply from reservoir storage in the headwater areas will be necessary to augment streamflow during dry seasons and provide water for leakage, lockage, and evaporation. The headwater reservoirs will provide the necessary flow when operated as proposed.

The primary navigation benefits that would be derived are the saving of time of tow operation by eliminating the necessity of breaking up tows and multiple lockages through the existing antiquated locks. The new locks 460 feet by 95 feet replacing locks 285 by 52 feet, will permit use of larger equipment. Greater towing speeds will also be possible.

Operation of the new locks mechanically instead of by hand operation will also save time and labor. With the increased commercial traffic that is anticipated within the next few years, the navigation benefits from the plan will be tremendous.

The district engineer has recommended allocation of storage for power purposes in each of the headwater reservoirs, and installation of power-generating facilities at lock 17 at lock 13 when it is modernized. That recommendation will permit full development of the sites, include a large block of firm power, and will contribute much to the future development of the basin. Transmission lines of the Alabama Power Co. traverse the entire basin. Only short connecting lines would be needed to connect the recommended projects into the system. The company, with about 500,000 kilowatts hydroelectric generating facilities and 700,000 kilowatts of steam capacity, is interconnected with all adjacent companies, and with the Tennessee Valley Authority. Power from any of the recommended projects could be absorbed into the power market as soon as available. Interconnection of the Warrior River plants with those authorized for the Alabama-Coosa River will permit flexibility of operation of both systems and of the private systems.

The normal operation of the headwater reservoirs for development of power and other purposes would release a large flow of water dur-

ing low-flow periods that would be available for domestic or industrial water supply purposes for the Birmingham and Tuscaloosa areas, when needed at some future date. Lake Bankhead, the pool of lock 17, could be used as a source for Birmingham, but the amount would be inadequate unless headwater storage is provided. The future benefits from the assurance of a dependable water supply would be large and, coupled with a nearby supply of hydroelectric power, would be very attractive to industries to locate along the stream.

The operation of the power reservoirs would also augment the streamflow during periods of low flow for abatement of stream pollution. The minimum flow would be sufficient to eliminate the need for secondary treatment of domestic and industrial wastes. This increased flow and dilution of pollution would make the river much more desirable for recreational purposes, and increase the fish and wildlife development.

The region is which the headwater reservoirs would be located is a rugged, scenic area. The William B. Bankhead National Forest is located in this area and provides a resource of vast importance for hunting, fishing, and other outdoor sports. It is near the TVA lakes in the adjoining watershed which have been extensively developed by State and local agencies. A population of approximately 800,000 persons reside within 50 miles of these reservoirs, most of them residing in urban area. A good network of roads and highways afford access to the area. The Alabama State Planning Board and State Department of Conservation are charged with recreational planning in the State of Alabama, and would assist in developing the reservoirs for public parks and vacation areas. Extensive recreational improvements have been developed on the shores of Lake Bankhead, and this area would be enhanced in value by operation of the headwater reservoirs. Commercial and sport fishing all along the Warrior River would also be enhanced by the operation of headwater reservoirs.

There are many other intangible benefits not readily susceptible to evaluation that would accrue from operation of the project.

We believe the recommended projects are economically feasible, worthwhile, and necessary. We further believe that the benefits accruing from the project will be far in excess of those claimed by the district engineer in his report. These benefits will not only be realized locally but will extend to the entire Nation.

We realize that during these times we must economize where possible. We are in accord with the idea of deferring, curtailing, or slowing down such projects that do not contribute to defense or to essential civilian requirements. Our resource development program should not be stopped entirely. As projects are continued under construction, and others planned, investigations should go forward on other worthy and needed projects, in order that they might be authorized and assume their positions in the orderly scheme of development. It should be noted that the authorizations for preparation of this report (H. Doc. 414, 84th Cong.) date back to 1937. They are not new proposals.

The full industrial and agricultural growth of Alabama is dependent on the sound and wise development of the streams of the State, the second largest system of navigable streams in the United States. These projects are national in scope. They will contribute to the

national defense, the economy of the State and region, and the strength and security of the Nation.

We earnestly request that the committee approve the recommendations of the Chief of Engineers on the Headwater Reservoirs, Warrior River, Ala., and authorize the construction of the first step of the development—that is, the New Hope Dam and Reservoir and the powerplant at lock and dam No. 17, the authorized work to be prosecuted by the Federal Government under the direction of the Secretary of the Army and the supervision of the Chief of Engineers, or by non-Federal interests under a license issued by the Federal Power Commission.

Mr. Chairman, I will now yield to my colleague, Senator Sparkman, who will give the committee some of the details of the plans and of steps already taken by the Alabama Power Co. in connection with the development.

(The following information was supplied for the record:)

Warrior River reservoirs

	New Hope, Sipsey Fork	Dorsey Creek, Mulberry Fork	Smiths Ford, Locust Fork	Lock 17, Warrior River	Lock 13, Warrior River
Length of dam.....feet	982	550	575	3,969	4,213
Height of dam.....do	2,250	3,060	15,500		1,019
Type	Earth	Earth	Earth	Existing	Concrete
Flood control storage.....acre-feet	217,000	170,000	118,000	0	0
Power storage.....do	1,380,000	1,530,000	494,000	180,000	84,000
Power drawdown.....feet	85	35	45		
Power drawdown.....acre-feet	957,000	750,000	351,000	Pondage	Pondage
Average operating head.....feet	192	117	136	68	57
Installed capacity.....kilowatts	92,100	27,700	28,800	41,000	35,000
Firm capacity.....do	65,300	23,200	23,700	41,000	35,000
Energy.....thousands of kilowatt-hours	170,956	55,594	67,941	165,400	146,861
Estimated cost	$44,725,000	$28,155,000	$24,986,000	$10,917,000	$11,059,000
Annual charges	$1,680,000	$1,074,000	$934,000	$623,000	$1,613,000

Benefits, total	$7,004,000
Annual costs, total	$5,924,000
Benefit-cost ratio	1.18

NOTE.—These reservoirs included in the ultimate plan. The New Hope Reservoir and the Hoover plant at dam 17 are recommended as the initial development.

Senator KERR. I wonder if while you are talking, do you have a statement with reference to the Alabama River?

Senator HILL. Yes: I did not know whether you wanted both. I do have a brief statement on that.

Senator KERR. I think it would be well to give your statement on that and then we will hear from Senator Sparkman.

Senator HILL. Mr. Chairman, I urge adoption of the amendment of this pending bill which will authorize local protection from floods at Montgomery, Ala.

Senator MARTIN. This is not a part of the bill?

Senator HILL. No; it has come in.

An investigation of this project was authorized by a resolution of this committee. The report has been completed by the district and division engineers, and is now pending before the Board of Engineers for Rivers and Harbors.

Now, we ask that you put this in and if you see fit, you can put a contingency there, but we do not want to miss this boat, so to speak. There may not be another one right away, as you know.

The northern section of Montgomery, the capital of our State, has been subject to devastating floods. The largest flood of record indicated 1,610 acres, 910 acres of which is urban developments. Severe damages have resulted to residents of the area. In other words, the water comes right into the city, right where there are homes, right where there is industry. Industry and other businesses were inundated by the floods.

The proposed improvements would consist of levees and floodwalls to provide protection to the area. The estimated Federal cost of this project is $1,280,000. The annual benefits that would be derived from the project are estimated at $83,000, and the benefit-cost ratio is 1.15.

I may say, Mr. Chairman, that we respectfully urge and plead with this committee to give us this protection from these floodwaters as they come down out of Coosa and Talapoosa Rivers into Alabama and inundate this valuable residential, business, and industrial property.

I thank you, Mr. Chairman.

Senator KERR. Very good, Senator Hill.

Senator Sparkman.

STATEMENT OF HON. JOHN J. SPARKMAN, A UNITED STATES SENATOR FROM THE STATE OF ALABAMA

Senator SPARKMAN. Mr. Chairman, I have a prepared statement I would like to submit for the record. I will just read excerpts from it.

Senator KERR. Very good.

Senator SPARKMAN. First, I want to say I certainly appreciate the opportunity of appearing here. I want to back up and endorse everything that my colleague, the senior Senator from Alabama has said and I want to join with him in the two amendments that he is proposing to this bill.

Senator KERR. I wonder if those amendments have been introduced in the Senate?

Senator HILL. I do not think they have. Would you like to have them introduced formally and sent to this committee? We will do that. Senator Sparkman and I will do that today.

Senator SPARKMAN. Mr. Chairman, I am not going to take the time of the committee to read my whole statement, but there are a few things that I would like to say.

By the way, with reference to the importance of river improvement and the increase in transportation, Senator Hill touched on it with reference to the Warrior. I know this committee does not have to be sold but there is quite a readable and informative article on the front page of the Wall Street Journal.

Senator KERR. Which the chairman of this committee has already placed in the record of this hearing.

Senator SPARKMAN. I am not at all surprised at the alertness of the chairman of this committee.

Senator KERR. I am not surprised and am flattered by the alacrity of the Senator from Alabama.

Senator SPARKMAN. If it were not false modesty, you remember, great minds run in the same direction.

But, Mr. Chairman, let me say we are very proud of our river system in Alabama. We have been working hard over the years in order to get it improved. Work has been done steadily.

Senator Hill told about the Warrior River and the early work on it, to canalize it and the erection of those dams. Now, the modernization and and of the proposals in this report to the engineers today, I believe, is included. It proposes improved lock 17 and also to build lock 18, which would replace locks 13, 14, 15, and 16, the old locks and dams on the Warrior River, and it also contemplates the improvement of the head waters, certain tributary streams on Sipsey Fork, Dorsey Creek and Locust Fork.

Here is Sipsey [indicating on the map] which, by the way, is not to be confused with the Sipsey River, which is a tributary of the Tombigbee and flows off in this direction right here [indicating on the map], but the Sipsey Fork, the Mulberry Fork, Dorsey Creek, and the Locust Fork, the improvement of all those headwaters is included in the report of the Army engineers.

There is one other thing I think should be pointed out to this committee and the report of the Army engineers takes notice of it and that is the fact that pending action by the Army engineers, the Alabama Power Co. filed an application with the Federal Power Commission to build a New Hope Dam and lock 17, the two together, and received a temporary permit. For the last year or year and a half, the power company has been carrying on extensive surveys. I am informed that they have spent about $700,000 to date. Reference is made to that in the report of the engineers and, as I understand, under the amendment from Senator Hill, it would be discretionary with the Chief of Engineers as to whether or not the power company would be allowed to continue. Presumably, it would be allowed to continue, provide its proposal was within the scope of the recommendation of the Board of Engineers and if it did not, why then the Federal Government could build.

In other words, it seems to me, that approval of this amendment which we are proposing would make it possible for us to move right on in the improvement of this river.

Senator Hill may remember that about 3 years ago we appeared before the Board of Engineers and, at that time, we tried to get this and then when they came in with tentative approval in the spring of 1954, you will remember, just before the end of Congress, we did our best to get a favorable report in order that we might get things started that year. But unfortunately, it had to go back for another study which caused this long delay and in that interim, the Alabama Power Co. came in and said they could improve it more quickly. Today, the company is quite far along in its program.

I would like to call attention also to the Smiths Ford Dam and the Dorsey Creek Dam; a rural cooperative already has a license to build two dams. I believe it is the Smiths Ford Dam and they have a temporary permit with reference to the Dorsey Creek Dam.

My understanding of the report of the Army engineers would be also that if they could not make progress on that line within the framework of the recommendation of the Army engineers, they would be allowed to go and do so. But again, by approving the report, approving the amendments that Senator Hill has read to you and the way it is worded, this whole project would be approved with the condition that if this cooperative is able to go on and do the work, it will be permitted to do so. Otherwise, the Government would be authorized to come in and do it.

Senator KERR. Now, let me ask a question at that point, Senator. With reference to the headwaters of the Warrior River, do I understand that the estimated cost is $73,985,000?

Senator HILL. That is the ultimate, Mr. Chairman; yes.

Senator KERR. Now, does that comprehend 3 reservoirs or 4 reservoirs, or how many?

Senator HILL. That comprehends, as I understand, the New Hope Dam and Reservoir and lock 17; is that not correct, sir?

Senator KERR. Do I understand the amendment goes beyond the proposed inclusion of the New Hope Dam and Reservoir and lock 17, to also propose the authorization of the other Dorsey Creek and Smiths Ford projects?

Senator HILL. That had not been my understanding; is that correct, General?

Major General ITSCHNER. No, sir. It does not include any other projects except the New Hope Dam and the powerhouse at lock 17.

Senator KERR. As I understood Senator Sparkman, he was talking about an additional authorization?

Senator SPARKMAN. Well, Mr. Chairman, let me say that I was completely in error. I had not seen the report. I know originally the report did include and it is contemplated that in the ultimate development of the headway waters of the Warrior, those will be included, but I pointed out that this cooperative had already started work on two of them.

Senator KERR. Then am I correct in assuming——

Senator SPARKMAN. I was in error in believing that they were also included in the report.

Major General ITSCHNER. They were studied in the report but were not recommended for authorization at this time.

Senator KERR. I am correct in assuming that the Senators are now seeking authorization at this time for New Hope Dam and Reservoir and lock 17, on the one hand, and the Montgomery Floodway on the other?

Senator SPARKMAN. That is correct. We are not seeking anything beyond the report of the engineers.

Senator HRUSKA. In the initial estimated cost of $62,430,000 figure, will that be embraced in the amendment which will be proposed?

Major General ITSCHNER. That is the current estimate of the work included in the Corps of Engineers' report, sir, as the cost of the projects that were recommended. In other words, New Hope Dam and the powerhouse at lock 17.

Senator HILL. Those are your figures, General?

Major General ITSCHNER. Yes, sir.

Senator SPARKMAN. All we are asking is that the report of the engineers be approved.

Senator HRUSKA. There are two figures. One is the initial figure and the other is the ultimate figure. I want to know which one they embrace?

Major General ITSCHNER. They are for the initial development of the two projects that were recommended.

Senator HRUSKA. I still do not know which the amendment embraces.

Major General ITSCHNER. The amendment would cover the authorization of the New Hope Dam, and the powerhouse at lock 17 to their initial development at a cost of $62 million.

Senator SPARKMAN. That is $62 million; right.

Mr. Chairman, I want to join also in the statement with reference to the flood control of the city of Mongomery. When I said we were not recommending anything beyond the engineers' recommendation, of course, I was referring to the headwaters of the Warrior. My understanding of this other, it is not before the committee yet, but is anticipated.

Senator HILL. Very shortly because it has been approved by the district engineer and approved by the division engineers.

Senator KERR. I take it that you contempate introducing it on the floor today, which amendment will be immediately referred to this committee and then it will be before us.

Senator HILL. That is the procedure.

Senator SPARKMAN. I certainly appreciate the opportunity of appearing here this afternoon. I know that all of you are very busy and I shall be very brief with my remarks.

I want to say a few words about three public works projects proposed for construction on Alabama rivers. Two of these—the general development plan for the upper Warrior River Basin and the local protection project at Montgomery, Ala.—have been proposed as amendments to the bill under consideration, by my colleague, the distinguished senior Senator from Alabama, Lister Hill. I join him in proposing these amendments. The third project concerns development of flood-control facilities on the Tombigbee River and its tributaries, which extend into northwest Alabama and northeast Mississippi.

The proposal for the Tombigbee River is considered in section 203 of the bill now before the committee. I understand the distinguished Senator from Mississippi, Mr. Stennis, who is unable to be here today, will discuss this subject at your meeting tomorrow morning.

Let me say that I concur fully with the remarks of my good friend, Senator Hill, on these projects for further development of Alabama waterways.

Alabama's river system is potentially one of the greatest in the entire Nation. It has the second largest system of navigable streams in the United States. The projects being considered today are directly related to, and a part of, this extensive network.

The Chattahoochee-Apalachicola system, in east Alabama, has a watershed of over 19,000 square miles. Most of it is in Georgia, but it does cover a considerable area of southeast Alabama. In fact, the Chattahoochee River forms the Alabama-Georgia boundary for over 120 miles. Construction is being completed on a number of locks and dams along this river, including the Jim Woodruff lock and dam located at the head of the Apalachicola River.

A second great Alabama river—the Coosa—originates in northwest Georgia and flows across the State of Alabama, joining the Tallapoosa River just outside our capital city of Montgomery, to form the Alabama River. The Alabama-Coosa River Basin, with its tributaries, drains an area of nearly 29,000 square miles.

Another of Alabama's magnificent river systems, sweeping almost the full width of north Alabama, is in Tennessee. Full development

of the Tennessee was carried out under the TVA Act of 1933. The benefits of this program have been phenomenal. What has happened on this river system is indicative of the great potential of all of Alabama's waterways.

A fourth great river system—running a few miles north of Birmingham, southward to Tuscaloosa, and thence south to the Mobile River and the port of Mobile—is the Warrior-Tombigbee.

The importance of the Warrior-Tombigbee navigation system is indicated by the increase in the volume of traffic on the river. In 1946 1,371,000 tons were shipped over the system. By 1955 the tonnage had increased to slightly over 3 million tons. Figures for the first 6 months of this year indicate that there will be a 10-percent increase this year.

The new locks and dams to be built on the river will bring about an even greater increase in tonnage.

To complete this very brief survey of Alabama's rivers, I want to mention the proposed Tennessee-Tombigbee waterway.

For over 100 years, engineers have sought to develop a waterway connecting the Tennessee River and the Gulf of Mexico by way of the Tombigbee River to the port of Mobile. A preliminary examination of this route was made in 1935. After receiving a report from the Chief of Engineers, Congress authorized construction of the waterway in 1946.

The public works appropriation bill voted by Congress this year includes a provision for $160,000 to be used in making a resurvey and reevaluation of the project, to be used in bringing it up to date.

Construction of this waterway will save millions of dollars in transportation costs. The vast Mississippi Inland Waterway system, covering 33 States, reaching from Minnesota and Iowa in the Northwest and Pennsylvania and Ohio in the Northeast, would be connected with an ocean port by slack water transportation. The possibilities of this transportation system are tremendous.

Plans have been made for improvements on the Tombigbee River having an estimated cost of nearly $22 million. The project calls for clearing all trees under 10 inches in diameter to 20 feet beyond the tops of the banks of these streams. It also calls for clearing channels of snags and debris. The principal improvements would be made on the Sipsey River, the Buttahatchie River, the Luxapalila Creek, the Tibbee River, and the Noxubee River. In all, there are 22 tributary streams which form the Tombigbee.

The people in the watershed of the upper Tombigbee system are very much interested in both flood control and the navigation possibilities of this river. The damage done by floods has been very large. It was reported that in 1955 alone flood damage in the Tombigbee River Valley in Mississippi accounted for a loss of $2 million.

This is primarily an agricultural area. The annual income per family is only about $1,000. Cotton is the principal crop, with the average acreage allotment being very small.

I am concerned about the ability of local interests to provide the necessary non-Federal cash contribution recommended by the Chief of Engineers. The House Committee on Public Works has approved a cash contribution of $1,585,000. I urge that the committee give its endorsement to this amount, and approve the provision as it now appears in the pending bill.

The second proposed development I want to discuss concerns the Warrior River and its headwaters. The Warrior originates a few miles west of Birmingham at the confluence of the Locust and Mulberry Forks. It flows southward joining the Tombigbee at the city of Demopolis, and unites with the Alabama River to form the Mobile River which empties into Mobile Bay. This waterway provides a navigable stream covering a distance of some 415 miles.

The upper Warrior River Basin covers a region including parts of 11 of Alabama's 67 counties and containing over 30 percent of the State's population. It is primarily an agricultural area. However, the significance of the increasing industrialization along the river is illustrated by the tremendous increase in river tonnage which I mentioned a few moments ago.

As a result of the growing industrialization and urbanization of this area, there is increasing concern as to the adequacy of the available water supply. Birmingham, whose industrial complex employs some 600,000 people, is seeking an additional industrial water supply.

Stream pollution along the Warrior and its tributaries comes from the industries located in and near the cities of Birmingham, Bessemer, and Tuscaloosa. During the period of low rainfall a serious condition exists, threatening both commercial and recreational activity.

An average of three floods yearly have been reported in the upper Warrior Basin. These are generally flash floods in the upper reaches; however, they last longer and do considerable damage further downstream.

The report submitted by the Chief of Engineers recommends the authorization of constructing the New Hope Dam and Reservoir and installing power generating facilities at lock 17.

The New Hope Reservoir would be located on the Sipsey Fork. The Sipsey Fork, which has a drainage area of 982 square miles, should not be confused with the Sipsey River that empties into the Tombigbee River which lies to the southwest.

The Alabama Power Co. has a tentative permit for constructing the New Hope Reservoir and installing the power generating equipment on the Warrior River at lock 17. The power company has already spent approximately $700,000 on survey, studies, and plans for these 2 projects.

I believe the power company will continue its program and expedite action as much as possible. Authorizing this project in accordance with the recommendations of the Chief of Engineers will allow the power company to go ahead. That is my interpretation of the intention of the language of the amendment that has been proposed by Senator Hill. I am sure that this represents the speediest action that can be taken to give employment to people in that area for construction of these projects and to obtain the badly needed electrical power.

Two other projects are being developed on the headwaters of the Warrior by an electrical cooperative at Oneonta. It has obtained a license from the Federal Power Commission to develop the Smith's Ford Dam and Reservoir on Locust Fork, and a temporary permit to prepare plans for developing the Dorsey Creek Dam and Reservoir on Mulberry Fork.

Construction of these reservoirs will permit the full development of the water resources of the upper Warrior River Basin. It is the

only feasible method for adequate flood control. The reservoirs would not disturb the economic conditions of the area or cause extensive flooding of farmlands.

The normal operation of these reservoirs would permit a larger flow of water that would help stabilize river transportation on the Warrior. It would also make available an improved water supply for domestic and industrial uses. Stream pollution would be better controlled by water from the reservoirs and the necessity for secondary treatment of industrial and domestic wastes would be avoided. An increased minimum flow of the river would permit more extensive recreational activity in the area and increase the fish and wildlife development.

The Warrior River navigation system would be improved by a dependable water supply from these reservoirs that would take care of leakage, and water lost in locking operations and through evaporation. Navigation along the Warrior is being modernized by a program calling for replacement of the 17 locks and dams built on the river between 1903 and 1915.

The Chief of Engineers has endorsed the installation of a unit at lock 17 which would have a generating capacity of 41,000 kilowatts. This is the project the Alabama Power Co. is presently working on. The installation of this equipment would greatly benefit this area through the increased electricity that would be available.

In addition to these benefits from these two projects that I have mentioned, there are others referred to by Chief of Engineers in his report. This report was first authorized in 1937. The program is not a new one.

I respectfully request the committee to give its approval to these recommendations.

Before concluding my remarks I want to urge the committee's approval of a flood-control project at Montgomery, Ala. There has been a large amount of damage in Alabama's capital city caused by flooding of the Alabama River. Many hundreds of acres have been covered by water, a sizable portion of which is residential property.

An investigation of this condition has been conducted by the Corps of Engineers in accordance with a resolution of this committee. The study, which is pending before the Board of Engineers for Rivers and Harbors, calls for building floodwalls and levees at an estimated Federal cost of $1,280,000.

Facilities for providing this protection from flood damage are badly needed. The requested project has the favorable endorsement of local interests. I hope the bill which the committee will recommend contains a provision authorizing this work to be done.

I believe all three of these programs I have discussed are worth while and necessary. The studies made by Army engineers show them to be economically feasible. Two of the programs have been under consideration for nearly 20 years.

A wise program for development of Alabama's water resources is necessary to the full industrial and agricultural growth of the State. Construction of the projects reviewed here this afternoon will contribute to the economy of the State and the country. The contribution of these projects to the strength and security of the entire United States gives them a national scope.

The plans providing for these three programs are not subject to criticism as uneconomic waste. They have been carefully planned and studied over a long period of time, representing parts of an orderly scheme for development of our water resources.

I hope they meet with your approval.

Thank you very much for permitting me this occasion for making these remarks.

Senator KERR. Warrior and Tombigbee Rivers, Ala.

Mr. Murray?

STATEMENT OF JOHN MURRAY, CORPS OF ENGINEERS

Mr. MURRAY. Mr. Chairman, the Warrior River Basin is located in north central Alabama, and flows into the Tombigbee River at Demopolis. The drainage area totals about 6,280 square miles; the population of this watershed is about 920,000 people.

The report of the Chief of Engineers on this matter is an interim report in response to resolution of the House Flood Control Committee adopted May 2, 1939, and is in final response to two other House committee resolutions.

There is no Federal flood-control project for this river at this time. However, there is a Federal navigation project for the entire waterway, from Mobile, Ala., to Birmingport, which serves the Birmingham industrial area.

This project furnishes a depth of 9 feet. The principal area subject to flood damage extends along the Warrior River, and lower regions of the tributaries above Birmingport. The most severe flood occurred during March and April of 1951, which exceeded bank full stages by 19 feet at Tuscaloosa and caused the damage of about $1\frac{1}{2}$ million.

There were also 4 floods during 1954 and 1955, which caused an estimated loss of $460,000 in this basin. The plan of improvement recommended by the Chief of Engineers in his report of May 3, 1956, provides for an ultimate plan for the headwaters of the Warrior River which would involve three reservoirs, New Hope, Dorsey Creek, and Smiths Ford, a powerhouse at lock 17, and a powerhouse at lock 13, when that project is reconstructed.

However, the Chief Engineer recommends authorization of the New Hope Dam and Reservoir and a powerplant at lock 17, with such modifications as he may deem advisable. The authorized work may be prosecuted by the Federal Government under direction of Secretary of the Army and supervision of the Chief of Engineers, or by non-Federal interests under a license to be issued by the Federal Power Commission under the Federal Power Act.

The estimated cost of the initial power installation at New Hope and at lock 17, is $62,430,000. The ultimate power installation is estimated to cost $73,935,000.

The annual benefits for the New Hope project and for the powerplant at lock 17, which includes benefits for hydroelectric power, flood damages prevented, and water supply for navigation and pollution, total $4,332,000. The annual charges total $3,806,000.

The benefit-cost ratio for these projects is 1.14. It is pertinent to this report, to note that the Alabama Power Co. has a Federal Power Commission permit for the construction of the New Hope and lock

17 proposals, and is engaged in studies, leading to a request for a license to develop the New Hope and lock 17 power resources.

Thank you sir.

Senator KERR. Very good, Mr. Murray.

Are there any questions?

Senator HRUSKA. I would like to ask: In regard to that, what is it, Alabama Power Co.?

Mr. MURRAY. Yes, sir.

Senator HRUSKA. What part will they take in the construction of the——

Mr. MURRAY. Recommendation of the Chief of Engineers provide that, in the project authorization, construction may be undertaken under the direction of Secretary of Army and supervision of Chief of Engineers or by non-Federal interests under a license issued by the Federal Power Commission.

Senator KERR. In that event, would there be any participation by the Federal Government in flood-control costs of the project?

Mr. MURRAY. There is no plan for such participation at this time, sir.

Senator KERR. Is that because the entire project would be identifiable as a power project?

Mr. MURRAY. No, sir; there is flood control and water supply for navigation accredited to the project as planned by the Chief of Engineers.

Senator HRUSKA. Let me understand this. We are asked to approve here an authorization for some $73,985,000. Now if the construction is gone ahead with by non-Federal sources, is that money still to be used?

Mr. MURRAY. No, sir.

Senator KERR. The request they are making is that we authorize this, to be constructed by the Federal Government, through the Army and the Corps of Engineers. However, in the authorization they suggest that we give them the authority to negotiate with other than Federal agencies or identities for the construction of the project without cost to the Federal Government, in the event that such an objective might be obtainable. Is that the gist of your recommendation?

Mr. MURRAY. That is the limit of the present plan, sir.

Senator HRUSKA. And where does the decision lie for that—in the Federal Power Commission—with the Department of the Army? Is that correct, Mr. Murray?

Mr. MURRAY. The decision has really been left open, sir.

Mr. BRENNAN. Mr. Chairman, the eventual construction would be dependent probably on some future action by the Congress and the purpose of the authorization would be to permit optimum development by the Federal Government if necessary. If the Alabama Power Co. proceeds with the plans, then it would construct the dam itself.

Now, the matter of Federal participation in such a private dam would have to be the result of further legislation.

Senator KERR. Under this authorization that is asked for, would not the Department of the Army have the authority to permit the Alabama Power Co. to construct the project and operate it free of the Army?

Mr. BRENNAN. I believe not, sir.

Senator KERR. Then I have misunderstood the recommendation. What effectiveness could there be to an alternative authorization that wouldn't permit anything?

Mr. BRENNAN. It is to recognize the principle, sir, of possible future private construction, and the eventual interpretation of the authorization would be as the committee chooses to word it.

Senator KERR. Then the effect of the recommendation would be that we authorize the Federal construction of the project, with the reservation that in the event some future Congress so provided, it might be erected by non-Federal agencies or identities in accordance with some future law?

Mr. BRENNAN. Yes, sir; I believe that this aspect has not been fully discussed within the Corps of Engineers, but I believe there would probably be some request of this committee or some guidance sought from this committee or from the Congress prior to, you might say, turning over the entire project to private power.

Senator MARTIN. Mr. Chairman, under those circumstances I am just wondering if we should wait until some suggested plan is presented to us?

Senator KERR. I gather from the statements that have been made to us that it is the thought of the Alabama Senators, that probably the Corps of Engineers, that if the Federal authorization is enacted, that that might be a spur to some proposal or action by the Alabama Power Co. which would be absent in case we do not authorize it.

Is there some substance to that belief, Mr. Brennan?

Mr. BRENNAN. Perhaps, sir, in the event that the Alabama Power Co. does not proceed or finds it infeasible to proceed with its plans, then the authorization of the project to the Federal Government would be clear, and there would be no delay introduced in the matter.

Senator KERR. Why would that not be the same as the question I asked awhile ago, that proceeding is an authorization for the Federal Government to do it, but with the provision that the Army could permit the development of it by the Alabama Power Co. Would that not be the way you understand General Sturgis? Authorization would be for a Federal project but it would not be necessary to go ahead with that project as a Federal project, nor would the Corps of Engineers contemplate doing so, so long as there was a chance of the Alabama Power Co. would develop the project by private capital.

Should there not be language in the authorization setting forth that specification?

General ITSCHNER. The Chief of Engineers, the report of the Chief of Engineers, sir, says as follows:

> The authorized work to be prosecuted by the Federal Government under the direction of Secretary of the Army and supervision of the Chief of Engineers or by non-Federal interests under a license issued by the Federal Power Commission.

Senator KERR. Would that not vest discretionary power in the Army, either to construct it or to permit its construction by private interest?

General ITSCHNER. Yes, sir; it possibly would, except before the Corps of Engineers could initiate construction they would have to have appropriations.

Senator KERR. I understand that, but I was thinking about the principles that would be enunciated in this authorization bill.

General ITSCHNER. The bill would vest discretionary power in the Secretary of the Army and Corps of Engineers.

Senator KERR. That is what I thought and the question I addressed awhile ago. There would have to be a proviso of that kind, the Federal Power Commission either would not give a license or would not implement one previously indicated, it would seem to me.

Senator HRUSKA. Mr. Chairman, may I ask of General Itschner: There was reference made here earlier today to a temporary permit which had been issued by the Federal Power Commission. To whom was that permit issued? Does anyone know?

General ITSCHNER. To the Alabama Power Co., by the Federal Power Commission—a temporary permit which permits later application for a license to build.

Senator HRUSKA. The purpose of my inquiry was to find out what basis there is for legislating discretion to one of the agencies of our Government. I just wonder on the policy of that, and also the purpose of this whole thing. I just wonder if the Congress had not better retain its full constitutional powers of acting upon a final alternative as between a private plan and one which will be promulgated by the Corps of Engineers on behalf of the Federal Government.

Senator KERR. As I understand the status of the Alabama Power Co.'s effort, and I would like to have the attention of the men here who can answer the question, or confirm or deny it, the Alabama Power Co. had been given a temporary permit. That permit does not authorize them to construct this project. It authorizes them to make a survey, and to study and to arrive at a decision as to whether or not they want to submit an application for a license in accordance with specifications which would be included in their application. And, as I understand it, they are now in the process under that temporary permit of making that study and survey, and it is not known either by the corps or by the representatives of Alabama, whether or not the Alabama Power Co. is going to come forward and ask for a permit to build this project or not.

Mr. BRENNAN. That is correct.

Senator KERR. In order to expedite the matter, the Senators from Alabama seek authorization by the Congress for the Federal Government to build the project. However, they and the engineers suggest an alternative provision in the authorization that in the event the Alabama Power Co. does make application for a license to build the project and does receive a license from the Federal Power Commission, then they be permitted to build the project and in which event, there would be no request for appropriation, or basis for appropriation by the Congress to implement the authorization for the Federal Government to build it.

Senator HRUSKA. Has this proposal been acted upon, or has it been referred to the Bureau of the Budget for its comment?

General ITSCHNER. Yes, sir; it has and we have a letter from the Bureau of the Budget on this subject.

Senator HRUSKA. May we have that made as a part of the record?

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., March 25, 1955.

The honorable the SECRETARY OF THE ARMY.

MY DEAR MR. SECRETARY: This is in reply to Assistant Secretary Roderick's letter of April 26, 1954, submitting a copy of the interim report of the Chief of Engineers on a survey of the headwater reservoirs, Warrior River, Ala., requested by a resolution of the Committee on Flood Control, House of Representatives, adopted on May 2, 1939.

The Chief of Engineers recommends modification of the existing project for Black Warrior, Warrior, and Tombigbee Rivers to include an ultimate plan for the development of the headwaters of the Warrior River, and the immediate construction of the multiple-purpose New Hope Dam and Reservoir on Sipsey Fork and a powerplant at the existing dam 17 on the Warrior River, at an estimatel total cost to the United States of $55,642,000 on the basis of 1953 price levels. Information furnished at our request by the Corps of Engineers subsequent to submittal of the report indicates that the New Hope project would have a benefit-cost ratio of 1.01, computed in accordance with procedures for evaluation of power projects now in use by the Department of the Army, Department of the Interior, and the Federal Power Commission. The powerplant at dam 17 is dependent upon regulation of flow which would be provided by the New Hope project, and its economic justification is not evaluated separately in the report or in the data subsequently furnished us.

The Alabama Power Co. has recently been issued a preliminary permit by the Federal Power Commission for a project (No. 2165) in the Warrior River Basin. It is understood that the company has advised the Corps of Engineers that it is prepared to provide facilities commensurate in scope and purpose with those recommended by the Chief of Engineers for immediate construction without expense to the Federal Government. The company plans to apply for a license from the Federal Power Commission in the near future. Under the Federal Power Act, as amended, conditions for the issuance of a license include the requirement that the project adopted shall be best adapted to a comprehensive plan for development of the river basin.

This appears to be an instance where, under the President's policies, and in the light of the circumstances which have developed subsequent to the preparation of the report, non-Federal interests should be encouraged to develop the resources of the Warrior River Basin under the provisions of the Federal Power Act. Therefore, the Chief of Engineers may wish to revise his recommendations.

Accordingly, you are advised that, while there would be no objection to the submission of the report to the Congress, authorization at this time of further development of the Warrior River Basin by the Federal Government as recommended by the Chief of Engineers would not be in accord with the program of the President.

Sincerely yours,

DONALD R. BELCHER,
Assistant Director.

General ITSCHNER. I might summarize it by saying that they do call attention to the fact that Alabama Power Co. has been issued a preliminary permit, and they state that the company plans to apply for a license from the Federal Power Commission in the near future——

Senator KERR. They state that they do, or do they state if they do?

General ITSCHNER. The Bureau of the Budget says that the company does plan to apply for a license. They say:

> Accordingly, you are advised while there would be no objection to the submission of the report to the Congress, authorization at this time of further development of Warrior River Basin by the Federal Government as recommended by the Chief of Engineers would not be in accord with the program of the President.

This is on the prior report of the Chief of Engineers on this same subject. This was dated back in 1955.

Mr. MURRAY. Sir, may I add, that the Bureau of the Budget comments were made on a proposed Chief of Engineer's report which

recommended authorization by the Federal Government of the proposal for which the Alabama Power Co. had applied for a license.

Senator KERR. Now is the significance of that statement this, that the Bureau of the Budget has not taken a position on proposal for an alternative authorization?

Mr. MURRAY. That is correct; yes, sir.

Senator HRUSKA. Has a specific amendment been considered by your office, Mr. Murray?

Mr. MURRAY. The specific amendment considered is the revised Chief of Engineer's report as submitted to the Congress on March 9, 1956.

Senator HRUSKA. No specific amendment has been considered?

Mr. MURRAY. That is correct, sir.

Senator KERR. We have before us a proposed amendment which Senator Hill and Senator Sparkman intend to introduce in the Senate today, and we will keep it here in file in view of the fact we do not need to put it in record in the event they do offer the amendment and it is referred to this committee. Are there any further questions with reference to Warrior and Tombigbee Rivers?

Senator HRUSKA. Just one other question.

Now if the Alabama Power goes ahead with its application for permit, and gets it and proceeds to construct, will that take care of the entire project as outlined by you, or will there be some aspects there of which this Congress will be expected to take action on?

Senator KERR. I would say in answer to that question, he could hardly answer because as of now there would be no matter before the Congress, but I am sure he would contemplate the possibility that there might be a request for the Federal Government to participate in flood-control features of it, which of course would be matter to be acted on if and when made.

But certainly, as of this time, if the power company went ahead with the project, there is nothing before us as to any action that the Federal Government would take.

Senator HRUSKA. My thinking was, Mr. Chairman, that the question in my mind was whether or not the Alabama Power Co. would be interested in the situation at lock 17, to the inclusion of the New Hope Dam up above.

Mr. MURRAY. They have expressed interest in both proposals.

Senator HRUSKA. That answers my question.

Senator MARTIN. Mr. Chairman, has the Alabama Power Co.—is there any specified time in which they shall act?

Mr. MURRAY. Yes, sir; the temporary permit, which they have, expires on December 1, 1957. They must, by that time, apply for a Federal Power Commission license.

Senator KERR. Are there further questions?

(No response.)

(Pertinent data on this project is as follows:)

HEADWATERS OF WARRIOR RIVER, ALA.

Location.—Headwaters of Warrior River are in northwest Alabama. Mulberry and Locust Forks join 20 miles west of Birmingham to form Warrior River.

Report authorized by.—House River and Harbor Committee resolution, March 10, 1937; House Flood Control Committee resolution, May 2, 1939; House Public Works Committee resolution, March 26, 1952.

Existing project.—Provides for an all-year navigable channel from the mouth of the Tombigbee River to mile 447.6 on Sipsey Fork, mile 444.6 on Mulberry Fork and mile 420.6 on Locust Fork. Project was practically complete, but now is being modernized with new locks and dams.

Plan of recommended improvement.—Provides for approval of the ultimate plan for the Warrior River Basin, and authorization of the New Hope Dam and Reservoir and the powerplant at dam 17, substantially in accordance with the plans of the Chief of Engineers herein and with such modifications as he may deem advisable; the authorized work to be prosecuted by the Federal Government under the direction of the Secretary of the Army and the supervision of the Chief of Engineers, or by non-Federal interests under a license issued by the Federal Power Commission.

Estimated cost (New Hope Dam and Reservoir and lock 17 powerplant)

	Federal	Non Federal	Total
Initial:			
Report (1953)	$55,642,000		$55,642,000
Current (December 1955)	62,430,000		62,430,000
Ultimate:			
Report (1953)	65,940,000		65,940,000
Current (1955)	73,985,000		73,985,000

Local cooperation.—None required.

Project economics (New Hope Dam and Reservoir and lock 17 powerplant)

	Report	Current	
		Using report method	Using latest method
Annual charges	$2,366,000	[1] $3,006,000	[1] $3,806,000
Annual benefits:			
Flood damages	465,000	417,000	417,000
Hydro power	2,052,000	[1] 2,982,000	[1] 3,722,000
Navigable water supply	125,000	125,000	125,000
Pollution abatement	68,000	68,000	68,000
Total	2,710,000	3,592,000	4,332,000
Benefit-cost ratio	1.14	1.17	1.14

[1] The treatment of "taxes foregone" ($740,000 annually) underwent a technical change between the time of preparation of the report and the present. In the preparation of the report the method used was to subtract the value of "taxes foregone" from the total hydro power benefit. Under present practice, the value of "taxes foregone" is added to the annual charges. This explains the difference in the annual charges and annual benefits in the last 2 columns of the preceding table. Either method produces substantially the same benefit-cost ratio.

Senator KERR. What does the corps have to tell us about the project at Montgomery, Ala.?

General ITSCHNER. Mr. Adams.

STATEMENT OF HARRY W. ADAMS, CORPS OF ENGINEERS

Mr. ADAMS. Mr. Chairman, my name is Harry W. Adams.

This is a local protection project, for flood protection works at Montgomery, the capital of Alabama. It is located in the south-central part of Alabama. The project consists primarily of earth levees. There are about 21,000 feet of earth levees, about 1,700 feet of concrete wall, and there are two pumping plants; one located at this point [indicating], another one here, which are to handle interior drainage during flood periods.

The project is estimated to cost $1,557,000, of which $1,284,000 is Federal cost, $273,000 is non-Federal costs. The non-Federal costs include a cash contribution of $182,000, based on January 1956 price levels, because of increased land use in the protected area.

The benefit-cost ratio is 1.15, and the project is indicated to be a well-justified project. The report at the present time is at the Board of Engineers for Rivers and Harbors.

Senator KERR. It has been approved by the district engineers?

Mr. ADAMS. Yes, sir.

Senator KERR. Has there been an indication from the Budget of an attitude?

Mr. ADAMS. No, sir; we have not yet submitted the report to the Bureau of the Budget.

Senator KERR. Are there questions?

Senator HRUSKA. Will the Bureau of the Budget comment before the Board of Review completes the report?

Mr. ADAMS. No, sir; the Bureau of the Budget comments after the Board of Engineers action on the report.

Senator HRUSKA. With reference to that concrete wall there, will the land to the land side of the concrete wall be filled?

Mr. ADAMS. No, sir; it will not. The concrete wall is about 1,700 feet, located right here, and it is concrete wall because of restricted rights-of-way.

Senator HRUSKA. Will any of the land on the landward side of the dike be filled in and reclaimed?

Mr. ADAMS. No, sir.

Senator HRUSKA. Neither at the place where pumping plant No. 1 is located nor where plant No. 2 is located?

Mr. ADAMS. No, sir. At plant No. 1, there is an area here which will be used as a sump area for temporary storage of runoff. That permits a reduction in the size of the pumping plant.

Senator HRUSKA. What would be the origin of those waters, city area?

Mr. ADAMS. Yes, sir; runoff from the protected area.

Senator HRUSKA. And the same is true of where the location of pumping plant No. 2 exists?

Mr. ADAMS. Yes, sir.

Senator HRUSKA. Is there a report by the Chief Engineer?

Mr. ADAMS. No, sir; there is not a Chief of Engineer's report as yet. We have the report prepared by the district engineer, which is concurred in by the division engineer, and the report is now before the Board of Engineers for Rivers and Harbors.

Senator HRUSKA. Thank you, sir.

ALABAMA RIVER AT MONTGOMERY, ALA.

Location.—The local protection works at Montgomery are located in the south-central portion of the State of Alabama along the Alabama River, 300 miles above its mouth.

Report authorized by resolution of the House Public Works Committee, April 28, 1936.

Plan of improvement.—Consists of 1,730 feet of concrete wall and 20,970 feet of earth level, for a total length of 22,700 feet, two pumping stations and appurtenant structures for accommodiation of drainage of the protected area.

Estimated cost (survey report, January 1956)

Federal	$1,284,000
Non-Federal	273,000
Total	1,557,000

Local cooperation.—Furnish lands, easements, and rights-of-way; hold and save the United States free from damages; maintain and operate the improvements; make necessary changes to utilities and to existing streets; contribute in cash 12 percent of the total construction cost, currently estimated to be $182,000 (January 1956 price levels).

Project economics

Annual charges	$72,000
Annual benefits:	
Reduction of flood damages	61,000
Increased land use	22,000
Total	83,000
Benefit-cost ratio	1.15

Senator KERR. Now, I understand that we have a witness on the Kanawha River, Meadow Branch at East Rainelle, W. Va.

I believe it is a statement by Congressman Kee, to be given to us by her son.

STATEMENT OF HON. ELIZABETH KEE, A REPRESENTATIVE IN THE CONGRESS FROM THE FIFTH DISTRICT OF THE STATE OF WEST VIRGINIA, AS PRESENTED BY JAMES KEE

Mr. KEE. Thank you very much, Mr. Chairman.

My name is James Kee, secretary to Congresswoman Kee, of West Virginia.

Mr. Chairman, I would like to ask your permission at this time to submit mother's statement. I should also like to say that Senator Neely of West Virginia is very much interested in this project. I had the pleasure to talk to him about it again last Saturday. He called me this morning at 7 o'clock and asked that the members of the committee give permission to file his statement in the record at this time.

Senator KERR. Very good. We will take your statement and his statement.

(The statement of Congresswoman Kee follows:)

STATEMENT OF HON. ELIZABETH KEE, FIFTH WEST VIRGINIA DISTRICT

Mr. Chairman, and other distinguished members of the subcommittee, I am grateful to you for the opportunity to present this statement concerning the Meadow River Flood Control project at East Rainelle, W. Va., and I am more than gratified that this project has been referred to you for consideration.

Before his death in 1951, my husband, the late Honorable John Kee, spent much time and effort since early in the 1940's on the Meadow River Flood Control project. This project has been under active consideration by the United States Army Corps of Engineers since directed by a resolution adopted by your committee on March 9, 1947. I have also continuously worked on this since my own election to Congress in 1951.

The first public hearing conducted by the Corps of Engineers was held in East Rainelle on May 25, 1948. Because of the urgent need for an adequate flood-control system for the East Rainelle area, this proposal has received the whole-

hearted and enthusiastic support and cooperation of the cities of East Rainelle and Rainelle, all civic and business organizations and individuals, the county of Greenbrier, and the State of West Virginia. The annual floods which ravage the community are a matter of gravest concern to every resident in this area.

The local communities have done everything within their power, during the years, to alleviate these flood conditions. However, an adequate flood-control system is entirely too expensive a proposition to be assumed by the local citizens alone. Federal assistance is necessary, and the justification and feasibility of the project have been established by the United States Army Corps of Engineers, and the project has been recommended by the Secretary of the Army, the Bureau of the Budget and the State of West Virginia, as well as all local interests in the affected area. In fact, local interests are enthusiastically cooperating in plans for the project and have agreed to assume their portion of the cost as recommended. The total estimated first cost of the plan is $823,000, of which $115,500 will be chargeable to local interests. In addition, local interests will be required to maintain all of the works after completion, at an average annual cost currently estimated at $3,000.

It should be noted at this point that no individual or corporation will be the chief beneficiary of this project. It will be beneficial to all of the citizens of the immediate and surrounding areas.

Mr. Chairman, I cannot too strongly urge you and the other members of your committee to give your approval to this project because congressional authorization this year will mean so much to the people of my Congressional District.

Thank you for your kind consideration.

Mr. KEE. In addition to that, Senator Laird, our junior Senator from West Virginia, is very interested in this project. He has been away over the weekend, as I understand, as a member of the subcommittee of the United States Senate and expects to be back sometime this afternoon.

Senator KERR. We will keep the record open for his statement and it will be inserted.

(The statement referred to is as follows:)

UNITED STATES SENATE,
COMMITTEE ON POST OFFICE AND CIVIL SERVICE,
July 16, 1956.

Hon. DENNIS CHAVEZ
Chairman, Public Works Committee,
United States Senate, Washington, D. C.

DEAR SENATOR: It is my understanding that your committee expects to consider, at a meeting today, the Meadow River Flood Control project for East Rainelle, W. Va.

In view of the fact that the Corps of Engineers, the Secretary of the Army, and the Budget Bureau have seen the importance of this project and have indicated their approval, I would be most appreciative if your committee could act favorably on it.

East Rainelle, W. Va., and the surrounding area, is faced annually with devastating floods and the residents are desperately in need of Federal assistance to alleviate this condition. It is impossible for the local citizens to bear the burden of the expense involved in construction of an adequate flood-control program.

I am sure the members of the committee are well aware of the dangers to health in flooded areas, as well as the great personal loss and inconvenience.

This important project has been under study for many years and any consideration that might be given it at this time will be deeply appreciated by me as well as the residents of Greenbrier County and the entire State of West Virginia.

With kind regards, I am,

Most sincerely yours,

WILLIAM R. LAIRD III.

UNITED STATES SENATE,
COMMITTEE ON POST OFFICE AND CIVIL SERVICE,
July 3, 1956.

Hon. DENNIS CHAVEZ
United States Senate,
Washington, D. C.

DEAR SENATOR: It is my understanding that the omnibus bill containing the Brush Creek Flood Control project for Princeton, W. Va., will probably reach your committee for action this week.

I am particularly interested in this project which is badly needed in the southern part of West Virginia. Flood damage in this area has been extensive and, in addition to being very costly, has caused a health hazard as well as a great inconvenience.

Any consideration your committee might be able to give this project will be greatly appreciated by me and I am sure its importance can be borne out by data presented to the House Committee also.

With kind regards, I am
Most sincerely yours,

WILLIAM R. LAIRD III.

Mr. KEE. Thank you very much.

Mr. Chairman, the hour is late and I will take but just a moment of your time except to say one thing. Our people in West Virginia, and in the vicinity of East Rainelle are certainly indeed grateful for the very fine work that has been done by the district engineer, regional engineer, Corps of Engineers, and General Itschner. It is a project that we have been actively working on since the early 1940's. We are indeed grateful that the project has been approved all along the line, recommended favorably by the Bureau of the Budget and the Secretary of the Army; grateful that it is in your jurisdiction, at the moment, and we will certainly be deeply appreciative of anything that you and the members of your committee can do in order to assure authorization for the better river flood-control project prior to adjournment of this session of Congress.

Thank you.

Senator KERR. Very good, Mr. Kee.

I note from the notes handed me total cost of $823,000, $708,000 Federal, $115,000 non-Federal, with the cost-benefit-cost ratio of 2.3.

Mr. KEE. That is correct.

Senator KERR. What do the engineers have to tell us about this?

STATEMENT OF JOHN MURRAY, CORPS OF ENGINEERS

Mr. MURRAY. Mr. Chairman, members of the committee, the Meadow River watershed is located in the south-central portion of West Virginia. It is a tributary of the Gauley River and is located in the Kanawha River drainage area. East Rainelle, with a population of 1,700, is located in Greenbrier County near the upper end of the watershed.

The Meadow River drainage area below East Rainelle is about 204 square miles. A report on this area was authorized by resolution of the Senate Commerce Committee, adopted March 9, 1948.

The largest flood of record occurred on March 5, 1934. Should it reoccur, it would affect about $10 million worth of property in East Rainelle and cause damage at about $300,000.

The plan of improvement, recommended by the Chief of Engineers in his report of May 17, 1956, to alleviate flood losses at East Rainelle,

provides for a new channel along Boggs Creek for a total length of about 3,200 feet; along Sewell Creek for a length of about 5,500 feet; and along the Meadow River proper for about 2½ miles below the town.

The project plan also requires a new bridge on U. S. Highway 60, about 200 feet west of the present bridge. The project is planned to reduce flood stages in East Rainelle, both from backwater from the Meadow River, hence the long stretch downstream, as well as floods on Boggs Creek and Sewell Creek, which are in the main section or downtown section of the town.

The current estimated total cost of the improvement is $823,000, of which $708,000 will be Federal and $115,000 will be non-Federal.

Senator GORE. May I ask a question, Mr. Chairman?

The bridge is not included as a part of the project; is it?

Mr. MURRAY. The bridge is included as a part of the project, sir. It is included as a responsibility of the local interests. I was just going to read the requirements of local cooperation and it is included in that.

Senator GORE. Entirely local?

Senator HRUSKA. Would you mind pointing out the location of the bridge on the map?

Mr. MURRAY. Yes, sir; it is here [indicating]. That is on U. S. Highway 60 through the town.

Senator GORE. If it is a Federal-aid road, that would be a matter for the State highway department and the Bureau of Roads; would it not?

Mr. MURRAY. Sir, the Department of Commerce and the Bureau of Public Roads has commented that it be assured that local interests are aware that Federal-aid highway funds may not be used to defray any cost of the new bridge. In their letter, which will be printed in the document, there is that statement.

Senator GORE. Is this an interstate highway?

Mr. MURRAY. Yes, sir; a primary highway of the United States.

Senator GORE. Not interstate? It is primary.

Mr. MURRAY. I do not know the designations, sir.

Mr. KEE. Senator, may I interrupt? I know about the bridge. Our local people came up and when they appeared before the Board of Engineers, sir, our local people—I think there were 17 that made the trip to Washington for that hearing—they left here and instead of going home, went to our State capital of West Virginia and conferred with our Governor, with our State road commissioner, and our attorney general. My understanding is that the State and the local people are to assume the entire cost of that bridge, sir.

Mr. MURRAY. Local interests will be required to furnish lands, easements, and rights-of-way, and spoil disposal areas necessary for construction of the project; hold and save the United States free from damages due to the construction works; maintain and operate the works after completion, bear the cost of necessary highway bridge relocation and sewer and utility adjustments; and take action necessary to restrict residential construction on the flood plain.

They have indicated their willingness to cooperate in this improvement.

The annual charges for the projects are $32,000, and the annual benefits, which are all from flood-damages preventive, $67,000, and the economic ratio is 2.1.

Thank you, sir.

Senator KERR. Thank you very much, Mr. Murray.

MEADOW RIVER AT EAST RAINELLE, W. VA.

Location.—Meadow River Basin lies in Greenbriar, Fayette, Nicholas, and Summers Counties in southeastern West Virginia. It is part of the Kanawha River drainage area. East Rainelle is located at the mouth of Sewell Creek, 30.3 miles above the mouth of Meadow River.

Report authorized by Senate Committee on Public Works resolution, March 9, 1948.

Existing project.—There is no existing project for flood control at East Rainelle, W. Va.

Plan of recommended improvement.—Provides for improvement of 2.5 miles of the channel of Meadow River below Sewell Creek, improvement of the lower 5,450 feet of the channel of Sewell Creek, improvement of the lower 3,230 feet of the channel of Boggs Creek, and clearing and snagging of 500 feet of the channels of Sewell and Boggs Creeks upstream from the above-cited improvements; and includes provision for a new highway bridge at the Boggs Creek crossing of U. S. Route 60 and limited sewer and utility relocations.

Estimated cost (report price levels same as current prices)

	Project document
Federal	$708,000
Non-Federal	115,000
Total	823,000

Local cooperation.—Provides without cost to the United States all lands, easements, rights-of-way, and spoil-disposal areas necessary for construction of the project; hold and save the United States free from damages due to the construction works; maintain and operate the works after completion, bear the cost of necessary highway bridge and sewer and utility adjustments; and take action necessary to restrict residential construction in the flood plain.

Project economics (report price levels same as current prices)

	Project document
Annual charges	$32,000
Annual benefits	67,000
Benefit-cost ratio	2.1

Senator KERR. Now, that is all that we had set forth for today with the exception of the Oswego River at Auburn, N. Y., and the Des Moines River in Iowa.

I understand there is no legislation pending with reference to the Oswego River at Auburn, and we are leaving that project open until we hear from the Senators from New York.

I understand that Senator Hickenlooper and Senator Martin, of Iowa, each has a statement with reference to the Des Moines River project and that possibly a Congressman will have a statement. If so, they can be put into the record at the appropriate place.

I wonder if the engineers would give us their explanation of the Des Moine River project?

STATEMENT OF JOHN ANDERSON, CORPS OF ENGINEERS

Mr. ANDERSON. This is an interim report on the Des Moines River. Final report will be submitted later. The Des Moines River rises in southwestern Minnesota and flows southwesterly across the State of Iowa and enters the Mississippi River just below Keokuk.

The population of this basin is about 700,000 people. Principal cities are Fort Dodge, Iowa, located up here [indicating]; Des Moines

and Ottumwa. Agriculture is the principal occupation, although there is some manufacturing and some mining. Precipitation in the basin averages about 30 inches; major floods occur during the period from April through July.

The most recent destructive floods occurred in 1947 and in 1954. The 1947 flood caused damages over $20 million. Des Moines had a damage of about $1,200,000, and damages at Ottumwa amounted to about $10 million in that particular flood. They had to evacuate 6,200 people in Ottumwa. There were seven lives lost in that flood.

In the June 1954 flood there were damages estimated at $13,100,000, of which $1,530,000 occurred in Des Moines, and 4,800 people were evacuated in flood area in Des Moines. One person was drowned.

The existing project for the Des Moines River provides for local protection for Des Moines and construction of Red Rock Reservoir. It was authorized in the 1938 act. However, no work has been done on that project, because the State requested that we withhold construction on this project until we completed the remaining basin study.

The Chief of Engineers has completed his report, which is in the process of being submitted to Congress. The Chief of Engineers recommends construction of the Saylorville Reservoir on the Des Moines River. The reservoir would have a capacity of 600,000 acre-feet, of which 525,000 acre-feet would be for flood control and 75,000 acre-feet for a conservation pool. It would supplement storage in the authorized Red Rock Reservoir and provide a high degree of protection for the city of Des Moines.

Estimated Federal cost is $44,553,000 and $128,000 for annual maintenance and operation. Annual benefits are estimated at $2,055,000; annual charges at 1,825,000, giving a benefit cost ratio of 1.11 to 1. That is on an incremental to Red Rock Reservoir; on a basin-wide system; and it will have a benefit cost ratio of 1.14 to 1.

The report was furnished to the Department of Agriculture, Public Health Service, Federal Power Commission, and Department of the Interior.

Senator GORE. What would your annual charges be that go to make up the annual charges of so much?

Senator KERR. That is the amount necessary to be charged off each year, as I understand it, to pay for the reservoir over a 50-year period.

Mr. ANDERSON. That is correct.

Senator KERR. You see, they have that figure with reference to all authorizations, giving us the annual depreciation factor really over the life of the project scheduled for 50 years.

Senator GORE. Then there are no annual charges of significance other than the annual depreciation rate?

Mr. ANDERSON. One hundred and twenty-eight thousand dollars is for operation and maintenance of that total. The State of Iowa concurred in the recommendation, but asked for certain minor changes which will be accomplished during the planning stage of the report. The report was furnished the Bureau of the Budget for determination of the reports relationship to the program of the President, and they made certain comments. I have a summary of those comments here, which I would like to read.

The Bureau of the Budget advises that there is no objection to the submission of the report to Congress. However, it advises that prior

to any request for construction funds a current reexamination of the project justification should be made and that the project should be reviewed to determine whether there would be any sound basis for requiring local interest to execute an appropriate repayment contract for costs allocated to water supply.

If authorized, the project for Saylorville Dam and Reservoir will be reexamined for economic justification prior to a request for an appropriation for initiation of construction in the same manner that all projects of the Chief of Engineers are reinvestigated prior to request for construction funds. The Chief of Engineers has reviewed his conclusion in the report and notes that the Red Rock Reservoir was approved by Congress without local cooperation and that if the Saylorville project is not authorized, the Federal Government would provide the conservation pool in Red Rock as authorized. Since the conservation pool at Saylorville would be only a substitution in the interest of increasing flood-control storage and to reduce silting in Red Rock as well as to increase the length of river for which low-flow improvement would be effective, he is of the opinion that there is no sound equitable basis for requiring local interests to execute an appropriate repayment for water supply resulting from low-flow augmentation.

Senator GORE. Is power installation feasible here at all?

Mr. ANDERSON. Not at this time.

Senator GORE. What do you mean, "not at this time"?

Mr. ANDERSON. The Federal Power Commission states that there would be no provision made for power at either of these projects at this time. No provision for power at Saylorville or Red Rock.

Senator GORE. What is the annual flow of this river? This is a $40 million project?

Major General ITSCHNER. At Des Moines, sir, the average annual flow is 2,075 cubic feet per second. It varies greatly. It goes down as low as 30 cubic feet per second. Consequently, the low flow is not very great for a river of this type.

Senator GORE. General, has the Corps of Enginers made any finding with respect to feasibility and economic justification for power installation?

Major General ITSCHNER. The installation of power at these two projects was considered, sir, in the study and it was determined that it would not be economically feasible to install power in the projects at this time.

Senator GORE. Off the record.

(Discussion off the record.)

Senator GORE. Could you supply for the record at this point, your own appraisal of power installations in these two projects?

Major General ITSCHNER. Yes, sir.

Mr. ANDERSON. All the storage is needed for flood control.

Senator KERR. So if you were going to add a power project to either pool, you would have to correspondingly increase the reservoir storage?

Mr. ANDERSON. Yes, sir; that is correct.

Senator KERR. That information to be supplied will be inserted at this point.

(The information referred to above is as follows:)

POWER STUDIES, SAYLORVILLE RESERVOIR, DES MOINES RIVER

The Corps of Engineers has made studies to determine whether it would be economical to include hydroelectric power by raising Saylorville Dam above the minimum height that would be required to furnish the desired flood control and conservation needs. One study would raise the minimum height of the dam by 2 feet. An installation of 7,500 kilowatts was contemplated, which would furnish 6,600 dependable kilowatts on a 10 percent load factor, which gives the most favorable consideration to power facilities. The benefit-cost ratio was found to be about 0.68 to 1 and does not include the item of "taxes foregone," which would be a further reduction of the benefit-cost ratio. Other studies with increased storage showed it would not be economical to raise the dam height to develop more power. Based on the revised cost and capacity, the cost of providing power at the Saylorville project will be approximately $1,000 per kilowatt, as compared to providing capacity at about $200 per kilowatt from an alternate source. This difference in cost between power sources is considered too wide for further consideration of power at the Saylorville site at this time. However, power can be added to this project at any future date without any modification of the project at this time.

After the flood of 1947, studies revealed that all of the storage capacity at Red Rock Reservoir would be required for flood-control storage. It was determined that a dam and reservoir of adequate size for flood control and power storage could not be constructed at the Red Rock site without excessive backwater flooding at the city of Des Moines for which no feasible means of protection can be developed. Power at these reservoirs will be considered at such time as studies for additional storage in the basin are made.

REVIEW REPORT FOR FLOOD CONTROL—DES MOINES RIVER, IOWA, INTERIM REPORT

(Not yet printed)

Location.—The Des Moines River rises in southwestern Minnesota and flows southwesterly across the State of Iowa to a junction with the Mississippi River at a point just downstream from Keokuk, Iowa.

Report authorized by Senate Committee on Commerce, July 10, 1945.

Existing project.—Authorized, but not constructed, Federal improvements for flood control in the Des Moines River Basin consist of levees and related local protection works at the city of Des Moines, Iowa, and Red Rock Reservoir on the Des Moines River between the cities of Des Moines and Ottumwa, Iowa.

Plan of recommended improvement.—Construct the Saylorville Dam and Reservoir on the Des Moines River, 11 miles upstream from city of Des Moines. The Saylorville Dam would be an earthen dam 6,000 feet long and 125 feet maximum height and would provide for a reservoir with 75,000 acre-feet conservation storage and 525,000 acre-feet of flood-control storage. The recommended Saylorville Reservoir would supplement the flood-control storage of the authorized Red Rock Reservoir to decapitate flood crests below Red Rock Reservoir on the Des Moines and Mississippi Rivers; and also, acting in conjunction with the authorized local protection works at Des Moines to provide a high degree of flood protection to that city.

Estimated cost (proposed Saylorville Reservoir)

	Federal	Non-Federal	Total
Project document (July 1952)	$40,554,000	None	$40,554,000
Current (July 1955)	44,453,000	None	44,453,000

Local cooperation.—None required.

Project economics

	Project document	Current
Annual charges (proposed Saylorville Reservoir)	$1,669,999	$1,824,948
Annual benefits: [1]		
Elimination of damages	1,419,350	1,670,955
Increased crop yield enhancement	3,200	2,370
Recreation	228,000	228,000
Fish and wildlife	31,810	31,810
Reservoir land rentals	21,300	21,300
Low water flow regulation	92,200	100,225
Total	1,795,860	2,054,660
Benefit-cost ratio: Saylorville Reservoir and Des Moines local protection (following Red Rock Reservoir) [1]	1.06:1.00	1.11:1.00
Total system [2]	1.11:1.00	1.14:1.00

[1] The report considers Saylorville Reservoir and the authorized Des Moines local protection to be interrelated functionally, and they are therefore presented as a unit for benefit determination.
[2] Includes the authorized projects of Red Rock Reservoir and Des Moines local protection, together with the recommended Saylorville Reservoir operating as a system.

Comments of the Bureau of the Budget.—No objection to submission of report to Congress.

DES MOINES, IOWA.

Senator ROBERT S. KERR,
Chairman, Subcommittee on Public Works,
Senate Office Building, Washington, D. C.:

We ask you to help block proposed monstrosity of flood-control dam at Saylorville on Des Moines River because it is a sop to Power Trust crowd. Let's have the economical 1944-authorized Red Rock multiple-purpose dam on Des Moines River at Red Rock on which Power Trust crowd has been fighting us ever since its authorization.

DES MOINES RIVER VALLEY PROJECTS, INC.
By LLOYD WADDELL, *Executive Secretary.*

DES MOINES, IOWA, *July 21, 1956.*

Senator ROBERT S. KERR,
Senate Office Building,
Washington, D. C.

DEAR SENATOR KERR: We sent you and Senator Gore a telegram. Copies are attached. We seek your sympathetic interest in our serious water resources problems.

Inasmuch as Congress is swamped with work, nearing the end of a heavy session, the Power Trust crowd in a desperate effort to ram through Congress the proposed flood-control dam at Saylorsville, hoping to head off the construction of multiple-purpose dams on the Des Moines River.

If south-central Iowa is to start halting migration from our State of so many tens of thousands of our people, we must secure Federal dams which will be a safeguard against serious droughts as well as for protection against floods. "We must save water, if water is to save us." Single-purpose dams would be additional "millstones" around the Des Moines River Valley's "economic neck."

Our present Governor and his 10-man drought study committee has recently made application to the Federal Government, asking that 36 counties (one-third of the State) be declared as disaster areas.

Enclosed you will find two kinds of evidence to prove our point, to wit: Newspaper article dated December 7, 1955, Plan: Keep Youths From Leaving Iowa, and copy of letter sent by Senator Guy M. Gillette, October 3, 1951, to Gen. Lewis A. Pick, Chief of Army Engineers. Because Senator Gillette did not follow up that letter, nothing was accomplished. Therefore, droves of progressive Republican voters deserted him in the 1954 fall election. We wanted action, and he did not produce it.

The writer is a lifelong Republican, and a great admirer of Teddy Roosevelt, the original conservationist of our Nation's natural resources, who branded the monopolies as being "predatory capital." I brand the Power Trust as being the modern pirates who sail the high seas of finance, who generally soak the public for all the traffic will bear.

Should you desire any information regarding the writer of this organization, I refer you to one of my best friends, Mr. Neal E. Smith, of this city, and former president of the Young Democratic Clubs of America.

We shall be very grateful to you and your Democratic colleagues on the Public Works Committees in both Houses, if you estimable gentlemen will block the "authorization" of the royally hated Power Trust crowd's flood-control dam at Saylorville on the Des Moines River.

Sincerely yours,

DES MOINES RIVER VALLEY PROJECTS, INC.,
LLOYD WADDELL, *Executive Secretary.*

DES MOINES, IOWA, *July 19, 1956.*

Senator ALBERT GORE,
Public Works Committee,
Senate Office Building, Washington, D. C.:

Proposed Saylorville flood-control dam on the Des Moines River is a sop to Power Trust crowd. We urge you to help block its authorization because such a monstrosity will not generate low-cost hydraulic power like the 1944 authorized Red Rock multiple-purpose dam at Red Rock, Iowa, on same river.

DES MOINES RIVER VALLEY PROJECTS, INC.,
LLOYD WADDELL, *Executive Secretary.*

[From the Des Moines Tribune, December 7, 1955]

PLAN: KEEP YOUTHS FROM LEAVING IOWA

Through a program of statewide industrial expansion, the Iowa Development Commission said Wednesday it hopes to keep the youth of Iowa from leaving the State.

The commission noted that in the 10 years between 1940 and 1950 the State lost 220,286 persons.

Statistics show that 50 percent of the population that migrated were in the 15-to-35-age group and 20.5 percent of the total between the ages of 35 and 50.

"In those age groups are the persons who have the greatest economic needs to be satisfied in the market place, the best consumers of goods and services, and the State's potential leaders," said T. E. Davidson II, commission director.

"Their loss is a deterrent to the growth of Iowa," he said.

The commission said it feels that by bringing more industry into Iowa and by creating more economic opportunities and job possibilities migration from the State can be checked.

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, October 3, 1951.

Maj. Gen. LEWIS A. PICK,
Chief of Engineers, Department of the Army,
Washington, D. C.

MY DEAR GENERAL: For a number of years my office has been receiving at intervals hundreds of letters, telegrams, resolutions, and similar communications concerning the construction of the Red Rock multiple-purpose dam on the Des Moines River in the State of Iowa. Since late in 1948 a considerable volume of correspondence has reached my office relative to the construction of a dam on the Des Moines River at another site which is known as the Howell Dam. Since the 1948 date this correspondence emanates from the advocates of one or the other of the proposed sites. The result has been that this greatly needed improvement has been unconsciously delayed. As you personally know, the Des Moines River Valley has suffered many disastrous floods in recent years,

and for flood-control purposes, as well as other proper uses of this improvement, it is essential that action be taken without further delay, if possible.

I am aware that a large portion of the delay has been incident to the failure of the proper State authorities to make a decision between the two sites. But I believe that authority exists under existing law for your Bureau to proceed with the construction of the Red Rock Dam. Under ordinary circumstances, I would not urge this action as long as the above dispute had not composed; but because of the urgent need, I am asking you to explore the possibility for proceeding with the construction of the Red Rock Dam.

I am reliably informed that definite agreements by proper public officials and sponsors or their representatives in the affected areas in the Des Moines River Valley were made with the Army engineers a number of years ago approving the Red Rock site.

There comes a time when disputes should be settled, if possible, without legal action or congressional action, and it seems that this point has definitely been reached relative to the improvement on the Des Moines River Valley.

The Des Moines River Valley Projects, Inc., and their supporters gave hearty backing for the passage of Public Law 534, 78th Congress, to authorize the Red Rock multiple-purpose-dam construction in the postwar period, to be constructed substantially in accordance with the plans and specifications so ably set forth in House Document 651 of the 78th Congress, 2d session.

I am not an engineer and have no way of assessing the relative merits of these sites, but as a Senator from the State of Iowa I am so convinced of the urgent need of immediate improvement of this section of the River Valley that I am urging as strongly as I can do so that action can be taken under decisions heretofore reached.

Respectfully submitted.

GUY M. GILLETTE.

Senator KERR. Now, Senator Chavez, our distinguished chairman is here and he has brought with him, Senator Langer from North Dakota, who has some witnesses that will appear before the committee a little later today.

I understand that Senator Langer would like to have the opportunity of presenting these witnesses who are the same, I believe, that Senator Young has called me about. We would be very happy to have you do so.

Senator LANGER. Mr. Chairman, Senator Young and I are both very much interested. First, I want to present Mr. Burke, district judge. Will you come forward, please? Mayor John Burke, of Williston.

Next, Mr. E. A. Burdick, civil engineer, and Harry Polk.

As I understand, they want to meet with the staff at 1 o'clock to have a hearing before they leave.

Senator KERR. That will be arranged.

Thank you very much, Senator Langer. We will be glad to have you gentlemen discuss the matter with the staff and we will arrange an appropriate time for your appearance.

Senator LANGER. Thank you very much.

Senator KERR. Mr. Webb from National Rivers and Harbors Congress has a resolution he wants to present.

STATEMENT OF WILLIAM H. WEBB, EXECUTIVE VICE PRESIDENT, NATIONAL RIVERS AND HARBORS CONGRESS

Mr. WEBB. Our president asked me to present to you informally, the reports of our resolutions and projects committee that were adopted at our 43d national convention.

Senator KERR. We are keenly interested in their views and their resolutions and I might remark for the record, the gentleman presenting them used to be chief clerk of this committee.

Mr. WEBB. Thank you very much.

We would appreciate it, Mr. Chairman, if the reports of our resolutions and projects committee might be included in the record of this hearing for your careful consideration of the recommendations made in those reports.

Senator KERR. Very good, sir. Your resolutions will be made a part of the record. The report of your projects committee will be filed with the record for reference.

Mr. WEBB. Thank you very much.

(The documents referred to above are as follows:)

REPORT OF THE RESOLUTIONS COMMITTEE TO THE 43D NATIONAL CONVENTION OF THE NATIONAL RIVERS AND HARBORS CONGRESS, MAY 12, 1956

FOREWORD

Migrations of varying degrees have historically played a most important role in the settlement and development of our yet young country. Beginning on our eastern seabord people moved our frontiers northward, westward, and southward over the years and expanded our young Nation. Today migrations are still taking place through the movement of humans and industry to the water courses throughout the land. These movements have intensified the need for additional flood protection, navigation, and water-resources development in general as a national problem. These newly developing frontiers and those already developed in our river valleys need the Nation's help to its utmost ability. Anything less may well endanger our economy and future security. The National Rivers and Harbors Congress can and will continue to devote its best efforts to methods of developing our Nation and benefiting all its people through an active program of resource development consistent with the changing times.

THE PRESIDENT'S MESSAGES

President Eisenhower on January 5 of this year reemphasized, in his state of the Union message, the critical importance of the wise use and conservation of our great natural resources and pointed out that their development cannot be accomplished overnight. His message acknowledged that the need is such that much faster progress must be made without delay. The President's 1957 budget message on January 16 reflects this view. He recommends that work be started on 36 authorized Corps of Engineers and Bureau of Reclamation projects; recommends the authorization and start of other improvements at Federal expense and participation in others. Other projects have since been recommended. Moreover, the President's Economic Report on January 24, 1956, pointed out that a great backlog of public works remain largely as a consequence of heavy expenditures for our national security during and since World War II and unexpected population grains. The message further states that outlays should be large enough to contribute decisively toward removing this backlog.

From these messages we have received encouragement and we hope that these and similar future messages, and the actions by Congress on the recommendations and policies therein, will result in development of our resources in keeping with the needs of our people and the stature our Nation enjoys in the world.

APPROPRIATIONS

There is no denial in any quarter that a great backlog of resource projects exists. The President's Economic Report recognizes it; and statements appearing in the Congressional Record make reference to it. The President recommends that outlays be large enough to contribute decisively to its removal, and Member of Congress are alert to the desirability of its reduction. In considering the elements entering into an increase in appropriations to accelerate the resource program it is interesting to note that our country, as a generous gesture has granted billions in specific aid to foreign nations and at the present

time there remains of the appropriated funds for that purpose some $10 billion of unobligated funds. Ten billion dollars approximates, at the present rate, the total appropriations that will be made for natural resource development in our own country in the next 10-year period.

Accordingly, we believe that a reconciliation of the two appropriations will provide adequately for our own welfare and permit our generosity throughout the world to remain substantial.

FLOOD AND DISASTER INSURANCE

The recent hurricanes and floods on the east coast and floods on the west coast have caused considerable thought to be given to insurance against such devastation. This Congress must insist that any method by which victims of these unfortunate events are made whole cannot become a replacement for a sound program of prevention. Whether the losses are paid out of private funds, a combination of private and Federal funds or solely from Federal funds the losses are not reduced and suffering is not compensated for. It is our hope that by the adoption of a disaster-insurance program our leaders are not lulled into complacency respecting a sound program of prevention but rather that they realize such insurance to be a stopgap measure pending the completion of protective projects or as a substitute for control measures where such measures are impracticable.

MAINTENANCE OF WATERWAYS AND PORTS

This congress is sympathetic to the proposition that obsolete and little used waterways should not be a burden on the Federal Treasury by the expenditure of funds for their unjustified maintenance. By the same token waterways that have carried sufficient traffic to justify their maintenance but are not now carrying such traffic because of lack of maintenance should by all means be restored to usefulness. New waterways are justified on prospective traffic and there is no reason why lack of maintenance should operate to take a waterway out of existence. The actual and potential traffic for existing and proposed waterways is of sufficient proportion to warrant a concurrent program of adequate maintenance of the one and immediate construction of the other.

COMMISSIONS AND REPORTS

It is evident from published reports that considerable time and effort have been applied to the study of natural resource development, among other things, by the President's Advisory Committees on Water Resources Policy and on Transport Policy and Organization; the Second Commission on Organization of the Executive Branch of the Government headed by former President Hoover; and the Commission on Intergovernmental Relations headed by Mr. Meyer Kestnbaum from industry. These related studies of a common broad subject have resulted in some instances in similar recommendations. We concur in some of these recommendations. However, it may well be that, unless the proper combinations from the several reports are put into effect with proper timing, the overall program of resource development will suffer a setback. The echelons of review and corrdination; the interagency studies, the State organizations; the partnership arrangements; all contemplated in one or more of the studies would be time consuming in the beginning at least. These coupled with the checks and balances already required of the appropriate Federal agencies by law and regulation should not be permitted to delay the already lagging programs.

We urge the President and the Congress to afford those of us interested in an accelerated and orderly program of resource development the opportunity to be heard further when the several recommendations are considered for adoption.

WATER SUPPLY

Our insufficient supply of water for domestic, municipal, and industrial uses has been increasingly apparent to the National Rivers and Harbors Congress for several years. The current supply weighed against projections into the future with increased population, expanding industry, and the conversion to irrigation even in the humid areas indicates that the problem is compatible with that of controlling floods—it is also serious.

We urge the Congress of the United States to consider the need for conserving and increasing our water supply concurrent with their considerations of the

flood problem and related resources problems, and legislate a Federal policy on water supply. Now is the appropriate time.

SHORE PROTECTION

The National Rivers and Harbors Congress hereby reaffirms its support of H. R. 4470, a bill to amend the act entitled "An act authorizing Federal participation in the cost of protecting the shores and publicly owned property," approved August 13, 1946. The need for shore protection with Federal participation on the water borders and lake areas of our Nation is parallel with the need for flood control in our river valleys.

MERCHANT MARINE

World tension today keeps us mindful of the frantic conditions under which ships were constructed for use in World War II. Many of the ships constructed under those conditions are now obsolete for even an appropriate contribution to our peacetime economy. Others in our active maritime fleet are approaching obsolescence. The deterioration of our merchant marine must not be allowed to come about. We reaffirm our support of a vigorous program by the Maritime Administration which will insure orderly replacement of those vessels which do not contribute to our peacetime economy and our national security.

We support also the efforts of the Maritime Administration in providing merchant marine officers from the United States and State maritime academies as replacements and additions to the maritime service of our country.

WATERSHED PROTECTION AND BASIN PLANS

This congress notes that a number of bills have been introduced to amend the Watershed Protection Act to include, under the Secretary of Agriculture, engineering structural programs for flood control, water supply, drainage, irrigation, and other phases of resource development. A lot has been said and is still being said about duplication and overlapping of functions in the Federal Government. These proposed amendments on the surface would appear to duplicate functions of the Departments of the Interior and the Army. Soil conservation, forestry, and other land treatment measures are favored by this congress but we do advise caution to the extent that conflicting laws do not operate to the detriment of sound basin development by all agencies concerned through the imposition of conflicting policies as to partnerships, projects economics, and related problems.

TOLLS ON WATERWAYS

This congress believes that the imposition of tolls or user charges on our inland waterways is incompatible with the historic free use of these waterways for the flow of commerce by which an extensive economy on, along, and off them has been developed. Moreover, the complexities of any equitable imposition of such charges on waterways improved over a period of a century are aggravated by the varying amounts of local contributions heretofore made. Tolls or user charges in lieu of some form of non-Federal participation in projects will have an adverse effect on water transportation perhaps to the extent of eliminating a number of carriers; increasing rate structures for the remainder; and even the elimination of important links in this vast transportation network. The Nation cannot afford such deterioration of a valuable asset by experiment. We cannot remain idle and permit it to take place.

THE CABINET COMMITTEE BILLS

Where our national transportation policy of 1940 now recognizes and would preserve the inherent advantages of each means of transportation and foster sound economic conditions among the several carriers, the President's Cabinet Committee on Transport Policy has recommended a change which would encourage and promote full competition between modes of transportation subject only to certain vague provisions intended to prevent the charging of rates less than out-of-pocket cost.

Our present system of regulation of railroads was designed for the purpose of restraining their practices of selective rate-cutting which in the past have been so successful in stifling competition by water carriers. Inland water for-hire

transportation owes its very existence and its encouraging current growth to the fact that this system of regulation has at last become partially effective. We recognize that it is in the public interest to protect small carriers who render efficient services from the destructive rate practices of large carriers who, by virtue of their size alone and regardless of efficiency, have historically been capable of putting their small competitiors out of business unless a proper restraint is exerted by Government.

These transportation amendments, while purporting to reduce economic regulation of transportation, would do so only for the railroads and with respect to water transportation would actually increase the scope of regulation in such a way as to restrain competition. To place artificial restrictions upon water carriers while relaxing the restraints upon rail carriers will relegate inland water transportation to the field of private carriage where its benefits are limited to only those shippers large enough to afford their own fleets.

We are impressed with the prosperity of the railroads and wish them continued success. We recognize the need for maintaining an efficient and sound railroad system in the United States, but we are convinced that the proper method is to improve the outworn administrative and operating practices of the railroads and not to cripple their small competitors. Let Congress continue the policy of survival of the fittest in transportation and not be tempted to substitute survival of the biggest.

PROPOSED REPEAL OF THE DRY-BULK EXEMPTION

Current efforts by special interests to induce Congress to impose Interstate Commerce Commission regulation upon the transportation of dry-bulk materials on our waterways would have the effect of replacing free enterprise with a regulated cartel. On our waterways there are over 1,700 carriers, of whom roughly 1,000 are contract carriers engaged in vigorous competition among themselves in the transportation of bulk commodities basic to our national economy. This competition under our system of free enterprise has produced rapid technological progress and effective transportation to the benefit and satisfaction of shippers and carriers, as well as to the public who ultimately derive these benefits. Legislation which would impose the devitalizing influence of Government regulation in this field, and virtually preclude the entry of new carriers into the business, and place small carriers at the mercy of large carriers would benefit no one other than a handful of prosperous major bargelines.

We urge Congress to reject such legislation and to remember that the benefits of our God-given rivers, improved by the Government for the benefit of the public must not be delivered into the hands of a few for their own exploitation.

HURRICANES AND FRESH WATER DEVELOPMENT

The Federal Government should intensify its efforts in three important areas:

(1) Observation and possible control of hurricanes. The Weather Bureau and the armed services are to be commended for recent improvements in reporting hurricanes and warning people in threatened areas.

(2) Artificial rainmaking has shown enough promise to warrant the use of public funds for further experimentation. Thought should be given to the control of and use of such artificially produced water, if the cloud-seeding technique is perfected in the future.

(3) More Federal funds should be allocated for study of projects to convert saline water into fresh water. This has been proven feasible, but the cost is still too high for practical application to agricultural and industrial needs. As the water-table continues to drop and as municipalities, industry, and agriculture increase their demands for more water, the sea becomes a promising source.

We commend Congress for recognizing this problem and recommend that the program be expedited.

COMMENDATIONS

The 43d National Convention of the National Rivers and Harbors Congress held in the Mayflower Hotel, Washington, D. C., May 10–12, 1956, was well attended by delegates from all parts of the United States. The press, TV, and radio very ably and correctly reported the proceedings of the convention. The arrangements and program committees made an outstanding effort for a successful convention. The Mayflower and other hotels in Washington made available their facilities and accommodations for the comfort and convenience of the

delegates. Visitors and other persons interested in the welfare and development of our resources cooperated heartily.

The National Rivers and Harbors Congress and its members express their appreciation and gratitude to all those named above.

REPORT OF THE PROJECTS COMMITTEE TO THE 43D NATIONAL CONVENTION OF THE NATIONAL RIVERS AND HARBORS CONGRESS

MAY 12, 1956.

Hon. OVERTON BROOKS,
President, National Rivers and Harbors Congress,
Washington, D. C.

DEAR MR. PRESIDENT: In pursuance of the call of the president, your projects committee met on May 10, 1956, to consider the projects submitted since the last session of the National Rivers and Harbors Congress. Hearings were afforded all who made appearance.

The committee at this session has examined 41 proposals embracing all resource improvements with which this Congress is concerned, including navigable waterways, harbors, flood control, soil conservation, reclamation, and water conservation.

Of the proposals examined, this committee is convinced that 17 constitute projects sound in conception, needful, and sufficiently advanced in status to warrant endorsement, involving a total estimated cost of $249,416,998. Ten proposals appear to be without sufficiently advanced development to warrant project endorsement at this time, but are believed to be meritorious and entiled to further consideration by this committee, if and when additional information may be adequate to warrant an endorsed status. We find that on six proposals, surveys have been authorized but the reports on such surveys have not been completed and we therefore recommend in these cases that the Congress request the appropriate authority to complete reports of its investigations and surveys as soon as practicable in order that action may be taken toward classification by this Congress. We find six proposals, which on preliminary examination appear to be desirable and needful, and we accordingly recommend that engineering and economic investigations of survey scope be made in these cases with a view to developing projects for subsequent authorization. Of the proposals investigated, we find two are without necessary data or sponsorship to enable the committee to reach a reasonable conclusion on their worth. However, we desire to give the applications sympathetic consideration, and, if possible, offer to the proponents the services of this Congress in reaching a solution to their problems. We have, therefore, not classified these but have suggested that the Secretary communicate with the applicants concerned and request additional data, upon the receipt of which further consideration will be given to their proposals.

Appendix A of this report sets forth in detail a list of all proposals and projects examined and the action taken thereon.

As the Members of this Congress know, the Committee on Public Works of the House of Representatives is currently holding hearings on navigation, flood control, beach-erosion control, and multiple-purpose survey reports which have been submitted to the Congress by the Secretary of the Army since enactment of the 1954 river and harbor and flood-control bill. These reports contain proposals for the construction of water-resource development projects throughout the Nation. Formulation of these proposals into an omnibus rivers and harbors and flood-control authorization bill and ultimate enactment into law will be a valuable addition and supplement to the presently authorized program. Some of the pending recommendations are of high importance to the Nation's expanding economy, and should be provided as soon as possible. Your projects committee recommends that the Congress and the President of the United States be requested to give every consideration to early approval of this highly important legislation and to the appropriations of the necessary funds for the planning and construction of these projects. Since passage of the last act, Congress has considered 2 navigation projects and 1 flood-control project estimated to cost $320 million which have been authorized. Funds have been included in the President's budget for fiscal year 1957 for initiation of planning and construction on two of these projects. A total of 42 reports are now under consideration by the House Public Works Committee in the formulation of the bill; 20 are flood-control projects estimated to cost $475 million; 16 are navigation projects esti-

mated to cost $20 million and 6 are shore protection projects costing an estimated $4½ million. In addition there are about 42 favorable reports of all types in various stages of processing to Congress having a total estimated cost of about $250 million.

During the intervening time since our last meeting there has been much activity in connection with Federal civil works construction and investigation program and in the field of water resources policy. Destructive floods have occurred in the Northeastern States and West Coast States which have emphasized the fact that the controlling of floodwaters and putting them to beneficial use is far from complete. The damages from these unprecedented floods and hurricanes in the Northeastern States far exceeded those of record, being estimated at more than $700 million with more than 200 lives being lost. These damages would have been much larger had not some of the authorized flood-control projects been constructed. The floods in California, Oregon, and Nevada of last December caused an estimated damage of $150 million. Some of the constructed flood-control projects in these areas prevented more extensive damages. Much remains to be done in the field of flood control, particularly in the determination of the feasibility of projects for the prevention of flood damages. In recognition of these problems and the need for an adequate flood-control program for the areas damaged, the 84th Congress has passed legislation authorizing and directing that survey investigations be made to determine practical means of reducing the loss of human lives and damages to property. Investigations have also been authorized to study hurricanes, to include methods for forecasting their paths and improving warning services and types of structures at coastal locations to prevent damages and loss of lives. It is evident, therefore, that the development of plans for the control of floods and minimizing the destructive force of hurricanes are of paramount importance. In this connection we must never for one moment lose sight of the objectives of the National Rivers and Harbors Congress in spporting this great program of water resource development.

Although much work remains to be done in the field of water resource development throughout the country, we feel that the problem is being expertly handled by the Federal agencies in cooperation with the States concerned. The need for full scale development of our water resource program is greater today than ever before. The projects committee, therefore, considers it highly important that sufficient funds be provided in order that the Federal agencies can carry out their respective water-resources program in an orderly fashion. Your committee is concerned over the large backlog of investigations authorized by Congress to be carried out by the various Federal agencies and recommends that appropriations be increased at this time in order that the backlog be reduced and that a reserve of projects may be "built up" for activation at such time as the economy of the Nation demands.

The committee renews its previous observations with respect to the essentiality of recognizing the strategic values of our waterways. The basic importance of transport in time of war increases steadily with the integration of the civil and military war effort. The transportation resources of the United States, rail, water, highway, air, and pipeline, are not adequate in time of war, and become dangerously inadequate when coastwise shipping is curtailed.

To remedy this situation, there is necessary a peacetime growth of the transportation network. There does not appear any probability of the economical expansion of the rail network. All other forms of transport are subject to economical peacetime expansion in greater or lesser degree. Of all these, inland water transport affords the most important opportunity for achieving a system (including all forms) that will be adequate in war time.

There are two Websterian definitions of the term "strategy." The more narrow of these is "the science and art of military command, exercised to meet the enemy in combat under advantageous conditions." The broader meaning is "the science and art of employing the armed strength of a belligerent to secure the objects of a war." It is in this latter sense that the committee applies the term "strategic" to our inland waterways, and their increase and improvement.

The committee is convinced that legislation that will make mandatory the inclusion of such strategic value, wherever it is found to exist, in all appraisals of waterways and proposed improvements thereof, is a need of the first importance. We are not unaware of the difficulty of drafting such legislation, nor of the fact that, as in certain other legislative fields, intangible values cannot be reduced to dollars and cents without recourse to arbitrary criteria. However, it is the opinion of the committee that such difficulties are not insurmountable,

and they stand ready to assist Members of the Congress of the United States in drafting provisions that will rationally and equitably accomplish the desired end.

Respectfully submitted.

SID SIMPSON, *Chairman.*

NOTE A.—A project which has been placed in class II, III, IV, or V by the committee may be reexamined from time to time upon due application and the submission of material supplementary information, with a view to advancing its classification; but no project will be reported upon by the committee more than once in each year.

Note B.—Attention is called to the fact that when a project is once put in Class I—Endorsed, such status continues and it is unnecessary to follow up at subsequent sessions with new applications. All projects "endorsed" by the Congress, upon the recommendation of the committee, retain their status until finally constructed, unless such action is rescinded by the Congress, and the Congress stands pledged to do everything possible to assist in reaching that goal.

APPENDIX A

Applications for approval of projects received by the Projects Committee

CLASS I—PROJECTS ENDORSED

Endorsed.—This means that the committee is convinced that the project is sound, needful, and sufficiently advanced in status, and should be promptly constructed in the public interest

Docket No.[1]	Name of project	State	Division
119–R	Lake Charles-Calcasieu River and Pass ship channel.	Louisiana	Lower Mississippi Valley.
843–R–3	Levees east of Chandlerville (Sangamon River).	Illinois	North Central.
852–AR3	Norfolk Harbor	Virginia	North Atlantic.
852–BR3	Thimble Shoal Channel	do	Do.
860–R2	South Channel: New York Harbor entrance channels and anchorage areas.	New York and New Jersey	Do.
875–R4	Whitewater River East Fork at Brookville.	Indiana	Ohio River.
1036A	Lower Cumberland	Kentucky and Tennessee	Do.
1036B	do	do	Do.
1036C	do	do	Do.
1037	Jamaica Bay	New York	North Atlantic.
1038	New Jersey pierhead line channel; New York Harbor: Entrance channels and anchorage areas.	New Jersey	Do.
1041	Dillon Dam	Ohio	Ohio River.
1042	Oscoda harbor of refuge	Michigan	North Central.
1043	Whitefish Point harbor of refuge	do	Do.
1044	Harrisville harbor of refuge	do	Do.
1049	Removal and control of sedimentation St. Lucie River.	Florida	South Atlantic.
1050	New York State Barge Canal	New York	North Atlantic.

CLASS II—PROJECTS CLASSIFIED AS MERITORIOUS

Meritorious.—This means that the committee believes that although the project is not sufficiently advanced in status to warrant its present endorsement, it is meritorious and open for further consideration by the committee

Docket No.[1]	Name of project	State	Division
598–R	Salem Harbor	Massachusetts	North Eastern.
770–R2	Saginaw River	Michigan	North Central.
793–R3	Cleves flood-protection project	Ohio	Ohio River.
883–R2	Improvements to channels and turning basins of San Juan Harbor.	Puerto Rico	South Atlantic.
888–R2	Long Beach, Plymouth Harbor	Massachusetts	North Eastern.
890–R2	Kahului Harbor improvements	Territory of Hawaii	South Pacific.
932–R	Pepperell Cove, Kittery, dredging of Chauncy Creek.	Maine	North Eastern.
1036	Connecticut River Basin flood control (Littleville Dam).	Massachusetts and Connecticut.	Do.
1045	Beaufort Harbor	North Carolina	South Atlantic.
1048	Grand River at Lansing	Michigan	North Central.

[1] Letter "R" following the project number indicates revision of a previous application.

CLASS III—EXPEDITIOUS REPORT ON AUTHORIZED SURVEY REQUESTED

Expeditious report on authorized survey requested.—This means that the committee believes the Congress should request the engineering authority to expedite the report of its investigation and survey of the project to the end that appropriate further action may be had thereon in regard to classification by the Congress

Docket No.[1]	Name of project	State	Division
970–R	Preliminary examination of southern branch of Elizabeth River, Norfolk Harbor.	Virginia	North Atlantic.
979–R2	Ocracoke Inlet	North Carolina	South Atlantic.
1008–R	Calcasieu low water dam	Louisiana	Lower Mississippi Valley.
1046	Channel from Pamlico Sound through Core Sound to Beaufort Harbor (wide channel at sea level).	North Carolina	South Atlantic.
1047	Thoroughfare Bay from Core Sound to Cedar Bay near the mouth of Neuse River.	do	Do.
1051	Port Mansfield	Texas	Southwestern.

CLASS IV—PROJECTS RECOMMENDED FOR SURVEY

Recommended for survey.—This means that the committee believes that sufficient showing on behalf of the project has been made to warrant further examination in the form of an adequate survey by an appropriate agency of the Federal Government

Docket No.[1]	Name of project	State	Division
671–R	New River dredging	Florida	South Atlantic.
1033	Drum Inlet (deepening and stabilization).	North Carolina	Do.
1034	Flood control-Saw Mill River, Bronx River and tributaries.	New York	North Atlantic.
1035	Intracoastal Waterway (Boston-Long Island Sound).	Massachusetts and Rhode Island.	North Eastern.
1039	New York and New Jersey Channels	New York and New Jersey	North Atlantic.
1040	Hudson River Channel	do	Do.

[1] Letter "R" following the project number indicates revision of a previous application.

Senator KERR. I want to especially thank the Corps of Engineers for their indulgence and patience and endurance and also the members of the committee.

We will recess until 10 o'clock tomorrow morning.

(Whereupon the hearing was adjourned at 2 p. m., to reconvene Tuesday, July 17, 1956, at 10 a. m.)

RIVERS AND HARBORS—FLOOD CONTROL

TUESDAY, JULY 17, 1956

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON FLOOD CONTROL—RIVERS AND HARBORS,
Washington, D. C.

The subcommittee met, pursuant to notice, at 10:10 a. m., in room 412, Senate Office Building, Hon. Robert S. Kerr (chairman of the subcommittee) presiding.

Present: Senators Kerr, Gore, Hruska, Neuberger, and Bush.

Senator KERR. The subcommittee will come to order. We will consider first an amendment proposed by Mr. Langer, for himself and Mr. Young to the bill H. R. 12080, to authorize the Corps of Engineers to compensate the city of Williston, N. Dak., for the acquisition and replacement of the municipal water supply and water treatment facilities which will be damaged, impaired, or rendered inoperative by the construction and operation of Garrison Dam and Reservoir on the Missouri River, and for other purposes.

(The amendment referred to is as follows:)

[H. R. 12080, 84th Cong., 2d sess.]

AMENDMENT

Intended to be proposed by Mr. Langer (for himself and Mr. Young) to the bill (H. R. 12080) to authorize the Corps of Engineers to compensate the city of Williston, N. Dak., for the acquisition and replacement of the Municipal water supply and water treatment facilities which will be damaged, impaired, or rendered inoperative by the construction and operation of Garrison Dam and Reservoir on the Missouri River, and for other purposes, viz:

On page —, line —, insert the following: "That the general comprehensive plans for flood control and other purposes in the Missouri River Basin set forth in House Document Numbered 475 and Senate Document Numbered 191, as revised and coordinated by Senate Document Numbered 247, Seventy-eighth Congress, second session, approved in the Flood Control Act of December 22, 1944, are hereby modified to include the payment by the Corps of Engineers to the city of Williston, North Dakota, for the construction or provision of adequate water supply, intake, treatment, storage, and transmission facilities, at a cost not to exceed $2,200,000, which payment is to compensate for the acquisition by the Corps of Engineers of and to replace the municipal water supply and water treatment facilities of said city which will be damaged, impaired, and rendered inoperative by the construction and operation of the Garrison Dam and Reservoir in said basin."

Senator KERR. At this time we will insert in the record, without objection, some letters addressed to Senator Chavez and myself and a statement by Senator Wallace F. Bennett, at this place in the record

(The letters referred to are as follows:)

JEFFERSON CITY, Mo., *July 13, 1956.*

Senator DENNIS CHAVEZ,
Chairman of Senate Public Works Committee,
Senate Office Building, Washington, D. C.:

This is to advise I concur in the recommendations of the Corps of Engineers, United States Army, as contained in its report dated March 1956, relative navigation improvements by the construction of a fixed crest overflow type dam in the Mississippi River from St. Louis, Mo., to lock and dam No. 26 north of that city.

PHIL M. DONNELLY, *Governor.*

AMERICAN MERCHANT MARINE INSTITUTE, INC.,
Washington, D. C., July 17, 1956.

Senator ROBERT S. KERR,
Chairman, Subcommittee on Flood Control—Rivers and Harbors,
Committee on Public Works,
United States Senate, Washington, D. C.

DEAR SENATOR KERR: I am writing to request urgently your favorable consideration of the following projects for inclusion in H. R. 12080, the omnibus rivers and harbors-flood control bill, on which your subcommittee is now holding hearings: Bridgeport Harbor, Conn.; Port Aransas-Corpus Christi Waterway, Tex., enlargement of branch channel to La Quinta; and Yaquina Bay and Harbor, Oreg.

Previously we have made representations in public hearings in support of these proposals, all of which have been approved by the Board of Engineers for Rivers and Harbors. It is therefore unnecessary to burden you with a repetition of the reasons for our favorable recommendations, the same being available to you from the records of the hearings.

Convinced as we are of the merits of these projects, we earnestly request favorable action at this time.

Sincerely yours,

HERBERT R. O'CONOR.

STATEMENT BY SENATOR WALLACE F. BENNETT, A UNITED STATES SENATOR FROM THE STATE OF UTAH

Mr. Chairman, I am pleased to have this opportuniity of presenting testimony before this distinguished committee urging your approval of much needed flood-control measures on the Weber and Ogden Rivers, of particular importance to the city of Ogden and the surrounding area. Section 203 of the omnibus flood-control bill, H. R. 12080, already approved by the House, would authorize this $520,000 project.

NEED FOR THE PROJECT

The year 1952 saw a severe flood pour down the Weber and Ogden Rivers inundating and severely damaging 1,200 acres of key residential, business, industrial, and manufacturing property in the city of Ogden, while at the same time washing out one transcontinental highway artery in several places and flooding another, as well as flooding strategic railroads and the Ogden railroad yards. Twenty thousand acres of improved agricultural lands were damaged and 100 acres of important residential and business land in Morgan were flooded.

The Corps of Engineers estimates, I believe conservatively, that unless protective measures are taken, flood damage will average $264,000 each year.

NATURE OF THE PROJECT

The Army Corps of Engineers proposes in its flood-control plan to operate several existing and authorized projects for flood control including Echo, Wanship, Pineview, Lost Creek, and East Canyon Creek Reservoirs as well as the Willard Bay diversion canal. I have been assured that the present contemplated uses of these structures will not be jeopardized or harmed in any way by operating them for flood-control purposes together with their original purposes.

Channel improvements will be made where necessary on the Weber River between Morgan and the mouth of the Ogden River. These improvements will consist of about 5 miles of low-disconnected levees; rock revetment where required to prevent bank erosion; about 12 miles of clearing and snagging; and channel enlargement in Ogden by raising the banks, removing the Hooper and Plain City diversion dams, and deepening the channel after removal of the dams.

The plan will afford protection from floods downstream from the Echo Reservoir on the Weber River, and from Pineview Reservoir downstream on the Ogden River from all floods with an indicated frequency of occurrence of once in 50 years in rural areas and once in 100 years in urban areas.

COST OF THE PROJECT

The estimated first cost of the channel improvements is $550,000 of which $450,000 would be provided by the Federal Government and $100,000 by the local interests. The annual charges after completion will be $40,000, of which $15,800 is Federal and $24,200 will be locally provided.

This cost is more than justified when compared to the estimated annual benefits from the project of $242,000, particularly when it is realized that the 1952 flood causing better than $1,600,000 in damages would have been largely prevented if this project had been in existence.

LOCAL COOPERATION PLEDGED

Both Weber and Morgan Counties which are principally involved in this project have pledged their fullest cooperation in assuming the local portions of the project operation and cost. The State of Utah wholeheartedly supports the project, feeling that nothing but good can come from its approval. The only reservation the State had concerned the fear that fishing might be damaged. However, the Corps of Engineers has assured the State that developments on the project will be coordinated with the Utah Fish and Game Commission so as to minimize any harmful effects the construction may have on the fishery resources, so the only problem has been removed.

HISTORY OF THE PROJECT

A survey of the Bonneville Basin was authorized in 1938 and included the Weber and Ogden Rivers. A report was completed by the Army Corps of Engineers in June of 1954, and I introduced a bill, S. 3607, embodying the corps' recommendations. Unfortunately, it was too late for the bill to be included in the omnibus flood-control bill of 1954, since the final report by the corps was not submitted to Congress until May 9, 1955.

In January of 1955, at the beginning of the new Congress, I reintroduced my bill, now S. 722, which was followed by H. R. 4262 introduced by Congressman Dixon in February of the same year.

CONCLUSION

In conclusion, I sincerely urge this committee to approve the Weber Basin flood-control project so that it might be included in this year's flood control bill. It is a worthy and meritorious project. Further delay is perilous.

Senator KERR. Senator Langer and Senator Young, are you going to have some witnesses that you would like to have make a statement; or do you care to make a statement?

Senator YOUNG. Mr. Chairman, first I would like to offer an amendment in connection with some legislation that I got through an appropriation bill permitting the Corps of Engineers to buy out two irrigation projects.

One of the provisions of that legislation provided that 100 percent of the farmers had to agree. There is now one tract of land which could not be deeded, except through special legislation by our next session of the legislature in January.

I would like to offer the amendment, and I think the legislation is supported by the Corps of Engineers. I think you want their

statement on it, and Mayor Burke, who is interested in this problem will file his statement.

Senator KERR. Is this your statement that you are filing?

Senator YOUNG. No, this is the amendment.

Senator KERR. This is the amendment?

Senator YOUNG. I have Mayor John Burke of Williston, N. Dak., who will file his statement, and I suggest that you should have the Corps of Engineers comment.

Mr. Chairman, Senator Langer will introduce the witnesses, but may I first make a short statement?

Senator KERR. Yes, Senator.

STATEMENT OF HON. MILTON R. YOUNG, A UNITED STATES SENATOR FROM THE STATE OF NORTH DAKOTA

Senator YOUNG. There is a request being made here today on this amendment here concerning the pool level of Garrison Dam being raised from 1,800 feet to 1,850 feet.

The city of Williston opposed the higher level and, if they had been successful, the legislation they are requesting would never have been raised.

Because of this higher dam, we have run into many problems, some of them quite similar to this one here.

For example, the city of Van Hook lost practically all of its trade territory and a part of the city, but under existing legislation at that time, the Corps of Engineers wasn't permitted to buy out the rest of the city.

Because this city had lost most of its trade territory, the Congress did take that into consideration in subsequent legislation to take care of that city.

Point No. 3: Their source of water supply now will be much farther as a result of the higher pool level elevation. It will require additional pumping cost, and their only recourse, of course, would be to the courts.

The Corps of Engineers has had a conservative policy, and that is understandable. I think Congress would want them to have a conservative policy, but in all the cases—and there have been a great many in connection with the acquisition of land for Garrison Dam—the courts have, on an average, granted a 40 percent increase.

I think, Mr. Chairman, that the witnesses will bring out reasons for this legislation in a very able way.

Senator KERR. You are referring to other than the amendment with reference to the area in the lands to be purchased by the Government?

Senator YOUNG. Yes.

Senator KERR. Have you offered another amendment, Senator?

Senator YOUNG. That was offered by Senator Langer and myself on the floor.

Senator KERR. On the floor of the Senate?

Senator YOUNG. Yes, sir.

Senator KERR. It will be before us.

Senator YOUNG. This other one was a very simple one, and I didn't want to burden you unnecessarily.

Senator KERR. Senator Langer.

STATEMENT OF HON. WILLIAM LANGER, A UNITED STATES SENATOR FROM THE STATE OF NORTH DAKOTA

Senator LANGER. Mr. Chairman and members of the committee, I have three other committee meetings—Judiciary, Civil Service and Post Office, and Foreign Relations—and so I cannot stay here this morning, but I did want you to meet Judge Burdick, district judge of North Dakota, one of the outstanding citizens there, Mayor Burke, of Williston, N. Dak., and they will be glad to answer any questions that may occur to you.

Also I would like for you to meet our friend, Harry Polk, who is here from Williston, and is one of the leading editors of the State of North Dakota.

I might add he is one of the few daily newspapers that supported me for public office; therefore, I want you to be unusually nice to him.

Senator KERR. Senator, I know the warm current of affection that stirs the cockles of the Senator's heart, when he is in the presence of the newspaperman that has supported him.

If these gentlemen have prepared statements they want to present, they may make them at this time, if Senator Langer or Senator Young will identify them.

Senator YOUNG. Mr. Chairman, I think we ought to start the hearings with Judge Burdick, and he will outline in detail this situation, and he will be supported by the other witnesses.

Senator HRUSKA. Mr. Chairman, off the record.

Senator KERR. Yes, off the record.

(Discussion off the record.)

Senator KERR. The two items that are being submitted are needed now as in the last general appropriation bill—there was money to buy a certain area of farmland below Garrison Dam with reference to which previous provision has been made to build dikes around.

It is the judgment of the Senators from North Dakota and the Corps of Engineers and the confirmed action of the Congress that it would save a million dollars to buy that land, and the money when appropriated provided that it could be done.

They now find that it is all available for purchase, except one piece of land which belongs to the State of North Dakota, and with reference to which they had trouble securing until the legislature meets next year.

They are asking for an amendment to permit the program to go forward.

Senator YOUNG. Mr. Chairman, I might say that the situation is one of an 1,850 pool elevation, and if that had been successful, they would not have been here today, and I finally took a hand in it, and finally got settlement on 1,850.

Senator KERR. Off the record.

(Discussion off the record.)

(Senator Young's amendment, above referred to, is as follows:)

That portion of title III of the act of July 2, 1956 (Public Law 641, 84th Cong., 70 Stat. 474, 480), that pertains to the purchase of lands and improvements in the Lewis and Clark Irrigation District in lieu of protecting said Lewis and Clark Irrigation District in connection with the development, construction, and operation of the Garrison Dam and Reservoir project on the Missouri River, is amended to read as follows:

"That in lieu of protecting the Lewis and Clark Irrigation District, the sum of $1,935,000 of the funds herein or hereafter appropriated for the Garrison Dam and Reservoir project on the Missouri River shall be available for the purchase of lands and improvements in the Lewis and Clark Irrigation District, and the sum of $1,196,000 shall be available for the relocation of highways and utilities therein. The substitution of land acquisition for the protection shall be made and the Secretary of the Army shall acquire such land and improvements if all of the landowners, except the State of North Dakota or any of its political subdivisions or agencies, on or before June 30, 1957, have offered to sell their property on terms agreeable to said landowners, and within the amount provided herein for such land acquisition. The Secretary of the Army is authorized to acquire lands and improvements owned by the State of North Dakota or any of its political subdivisions or agencies pursuant to the provisions of this or any other act except that no limitation of time shall apply within which property of the State of North Dakota or any of its political subdivisions or agencies shall be offered for sale if property of the State of North Dakota or any of its political subdivisions or agencies is acquired pursuant to the provisions of this act. If all of the landowners except the State of North Dakota or its political subdivisions or agencies on or before June 30, 1957, have offered to sell their property on terms agreeable to said landowners, within the amount provided for such land acquisition, and the Secretary of the Army determines that the acquisition of lands and improvements of the State of North Dakota and any of its political subdivisions or agencies is necessary, the institution of condemnation proceedings in the appropriate United States district court is authorized."

STATEMENT OF EUGENE A. BURDICK, ON BEHALF OF THE CITY OF WILLISTON, N. DAK.

Mr. BURDICK. I am Eugene A. Burdick, of Williston, N. Dak., and I appear as an official representative of the city of Williston, and as an official representative of the Williston Chamber of Commerce.

I am here to speak in behalf of the amendment offered by Senator Langer, cosponsored by Senator Young.

Williston is a city of 12,000 people, situated in the headwater of what would be the reservoir of the Garrison Dam, located about 18 miles east of the Montana-North Dakota State line.

The city of Williston is the fifth largest city in the State and is the only major community of any size that is now adversely affected by the operation of Garrison Reservoir.

The elevation at Williston, where we now take in our water supply is 1,831 feet above sea level, so obviously an operating pool level in excess of that level would mean a maximum normal operating level of 1,850 feet above sea level, and poses quite a problem to us.

To the extent that the Corps of Engineers have conceded that it will be necessary to relocate the existing intake location for our municipal water supply and abandon the existing transmission line, and provide a new intake facility here at the Lewis and Clark Bridge, a distance of 4½ miles from the city of Williston and which is already 16,000 feet further away than our present source of water, the existing line is 12,000 feet in length and the new line will be 28,000 feet. So the Army Corps of Engineers concedes that it will be necessary to construct a new permanent intake facility at the Lewis and Clark Bridge location; and also provide a grid room and presedimentation based at that location, as well as an actual transmission line to provide for the pumping.

They also concede that it will be necessary to provide a transmission line from the Lewis and Clark Bridge to our existing water plant.

The existing water plant, coupled with the other, provides Williston with a municipal water supply of 3.1 million gallons of water per day. That is composed of water taken from the river through a 12-inch line plus 2 standby wells located right at the water-treatment plant for which no transmission line is necessary, but the wells originally proposed as standby have become a part of our water-supply system and would have to be replaced, through a source of supply elsewhere.

The equivalent of the 12-inch line, plus the amount of pipe necessary to carry the equivalent in water produced in the wells would be a 20-inch line. We are asking for a 20-inch line the equivelent of what we have at the present time, for a distance of 12,000 feet, and for this distance from 12,000 feet to 28,000 feet, we are asking for a transmission line equivelent of, or of sufficient design that we will be provided with a source of substantially equal character, as our present source of water is today.

A 36-inch line has been recommended, which is virtually a friction point. At the quantities of water that we expect to pump, that is. We feel we are entitled, in addition to what the Corps of Engineers uses, to compensation based on the cost of a 36-inch line for the additional distance of 16,000 feet, plus the value of a 26-inch line for a distance of 10,000 feet.

Even with that, we will incur excessive pumping costs, way beyond our present cost at the Lewis and Clark location. We are willing to absorb those additional pumping costs to take our water from the river to the high ground bridge as part of our general obligation, if you want to call it that, to assist in a community way to help defray part of the relocation expense, but we don't feel that we should pay for any additional pumping cost from the water treatment plant to be located here to the equivalent, for instance, at a point 12,000 feet from the city.

The Corps of Engineers contend that they can protect the existing water location, and the immediate situation of the city, but apparently there is an honest difference of opinion as to whether that plant can be protected.

The Public Health Service of the United States, and the State health department have condemned the location of a water plant protected by dikes. A statement will be made by our State health officer and by the mayor as part of his testimony which will corroborate that.

It absolutely demonstrates to this committee that we cannot expand the existing facilities. Our present water plant is inadequate for the present size of the city. It is in the heart of the Williston Basin, and because of the activities of steel, has grown to the point where it is necessary for the city now to expand its water facilities.

Senator HRUSHA. What is the popualtion of the city of Williston?

Mr. BURDICK. 12,000.

Senator HRUSKA. Where is the location of the dikes that you are speaking of?

Mr. BURDICK. The location is generally along this wavy line and the water transmission line would be behind it, but the water plant if left there will be behind a great portion, that is, the ground water table will be raised, and the Army proposes to protect that by an auxilliary tank and by pumps, if necessary.

That is a maneuver which is questioned by the Public Health Service and which is condemned by the State health department, which contend that the protective measures are of questionable efficiency.

Senator HRUSKA. Is the ground between your existing water plant and the dikes all low ground?

Mr. BURDICK. Yes, the existing plant, I think, is 1,841 feet above sea level.

Senator HRUSKA. That is the local and the clear well?

Mr. BURDICK. Yes; that would be adversely affected by a 1,850-foot pool level. The corps says they can protect the existing water plant. The State health department says we will have to build a new one out here, so, as we followed the discussion, there are two agencies of the Government who differ as to what we must have.

One says we must have 2 water treatment plants, and it would require 2 water lines: 1 to carry raw water to the existing plant, and 1 for the carriage of treated water from the new plant, both of which lines would be 28,000 feet in length, and a wasteful expenditure.

Also, it would be necessary to expend something over $100,000 just to protect the existing water plant, to say nothing of permanent maintenance of that, and the consulting engineer of the Corps of Engineers have recommended that the feasible, economical thing to do is to relocate the entire water plant at the Lewis and Clark Bridge site.

Senator KERR. How much is needed to do that?

Mr. BURDICK. The cost which we would consider would be for a 3.1 million gallon per day water plant—we would build a much larger plant to take care of our needs, and we are asking compensation only on the basis of the plant that we presently do have—$566,500 for the water treatment plant; $197,340 for the 20-inch line for a distance of 12,000 feet; $216,875 for the 36-inch line for a distance of 16,000 feet; $13,200 for the new electrical transmission line to the site of the intake; $198,000 for the grid chamber, and the sedimentation room located at the Lewis and Clark Bridge; and $228,000 for a 1 million gallon daily intake.

The reason for that size is that once constructed it cannot be enlarged, and it costs very little more to construct it of sufficient size in the beginning, to build it for the expected increase in the land, as the city of Williston grows in population.

In our present location we do not have need for such a structure, but as part of the reservoir it would have to be a permanent structure, and we think it should be of sufficient size to permit us to pump any amount of water that industry in this area may require without additional cost to the city.

That generally covers the item of damage. We are asking for a total of $1,882,540. That is some three-hundred-thousand-odd dollars less than the proposed payment that Senator Langer proposed, and we are willing that the amount proposed in the bill be reduced to that figure; and in doing that, as far as it is based on safe considerations (1) that the city is willing to absorb the additional pumping costs from the Garrison Dam reservoir through the new steel treatment plant, and (2)

if we do the work ourselves, we feel that we could do it 20 percent cheaper than if the contracts were let by the Corps of Engineers.

We have also abandoned claim for several other items that we feel perhaps would be the result of any project such as the transportation of the workers, housing that would have to be provided for at the work location—we are willing to absorb those items as hazards of the new location of the plant.

Senator HRUSKA. Would the project as you have recommended mean total abandonment of the existing plant?

Mr. BURDICK. Yes, the project we have recommended would mean the abandonment of the existing plant. It has been recommended by the Public Health Department.

Senator HRUSKA. There is no salvage value?

Mr. BURDICK. No, and the existing plant is certified as usable and in good repair and serviceable for the type of community that they were installed for some 24 years ago, so we are looking for replacement which would be put back in the new location as it would be in the old location.

Senator HRUSKA. The reservoir would stay as it is?

Mr. BURDICK. Yes, the reservoir would stay as it is. We have a 3 million gallon storage reservoir for treated water right on the north side of the city of Williston at a high elevation. That would not be adversely affected. I have a chart which shows the daily pumping costs for flows of 3 million gallons per day to 36 million gallons per day through various pipeline sizes. I would like to file that with the committee.

Senator KERR. Very well.

Mr. BURDICK. I also have a chart of the flow diagram of the proposed water treatment plant at Williston, N. Dak. That is developed in a 20-inch line as against a 30-inch line in the various quantities of water from the new location, and we would also like to file that.

Senator KERR. Yes.

Mr. BURDICK. Also I have a statement of extra raw water pumping costs which would be incurred in the new intake over the present intake, and a schematic drawing of the friction-head in feet, showing intake, and down in the third line would be the equivalent of facilities which would have to be abandoned in the present location.

Also I have a certified copy of the resolution adopted by the Board of City Commissioners in support of the figures which I have just given you.

Senator KERR. Those documents may be put into the record.

(The information referred to is as follows:)

RESOLUTION BY BOARD OF CITY COMMISSIONERS OF CITY OF WILLISTON, N. DAK.

Whereas the maximum normal operating pool level of the reservoir of Garrison dam will render unsafe and unusable a substantial portion of the existing municipal water treatment system of the city of Williston, including intake facilities, a water transmission line 12,000 feet in length from the Missouri River to the water plant, the presedimentation basin and grit chamber, the 3.1 million gallons per day water treatment plant, and several stand-by wells; and

Whereas the source of supply of water for the necessary replacement water plant facilities recommended by both the Corps of Engineers and the consulting engineers of the city of Williston will be extended 16,000 feet beyond the present source and, in order to deliver water to the city without additional pumping and maintenance costs, it will be necessary (1) to build a permanent intake structure having capacity for present and foreseeable needs of consumers to be served by the city and (2) to build a new water transmission line of capacity (36-inch line recommended) sufficient to avoid additional pumping and maintenance costs from the new source to a point 12,000 feet from the city, and

Whereas, it appears desirable to clarify the position of the city with respect to its claim for damages and to itemize the elements of damage to its water plant which it believes it will sustain by reason of the operating of the reservoir of Garrison Dam: Now, therefore, be it

Resolved by the Board of City Commissioners of the City of Williston, That it is the unanimous and considered judgment of the board and its consulting engineers that the damages the city will sustain by reason of the adverse effect of the reservoir of Garrison Dam upon the existing water treatment facilities of the city, considered in the light of the estimated costs of the installations reasonably necessary to replace its existing facilities with facilities of substantially equal capacity and substantially equal operating and maintenance costs for the following will be: 18 million gallons per intake; presedimentation basin and grit chamber; electric transmission line; 36-inch C. I. pipe 16,000 feet long; 20-inch C. I. pipe, 12,000 feet long; 3.1 million gallon per day treatment plant, for the total cost of $1,882,540; be it further

Resolved, That the Congress of the United States be urged to appropriate sufficient funds to compensate the city for such damages as an obligation of the Federal Government and that a copy of this resolution be forwarded to the appropriate committees of the Congress and to our State congressional delegation.

Dated at Williston, N. Dak., this 10th day of July 1956.

WALTER O. BURK,
President of the Board of City Commissioners.

Attest:

STATE OF NORTH DAKOTA,
County of Williams, ss:

I, the undersigned, being the duly qualified and acting city auditor of the city of Williston, N. Dak., hereby certify that I have compared the attached and foregoing with the original resolution thereof on file and of record in my office, and the same is a full, true and correct copy of the same.

WITNESS my hand and the seal of said city this 12th day of July 1956.

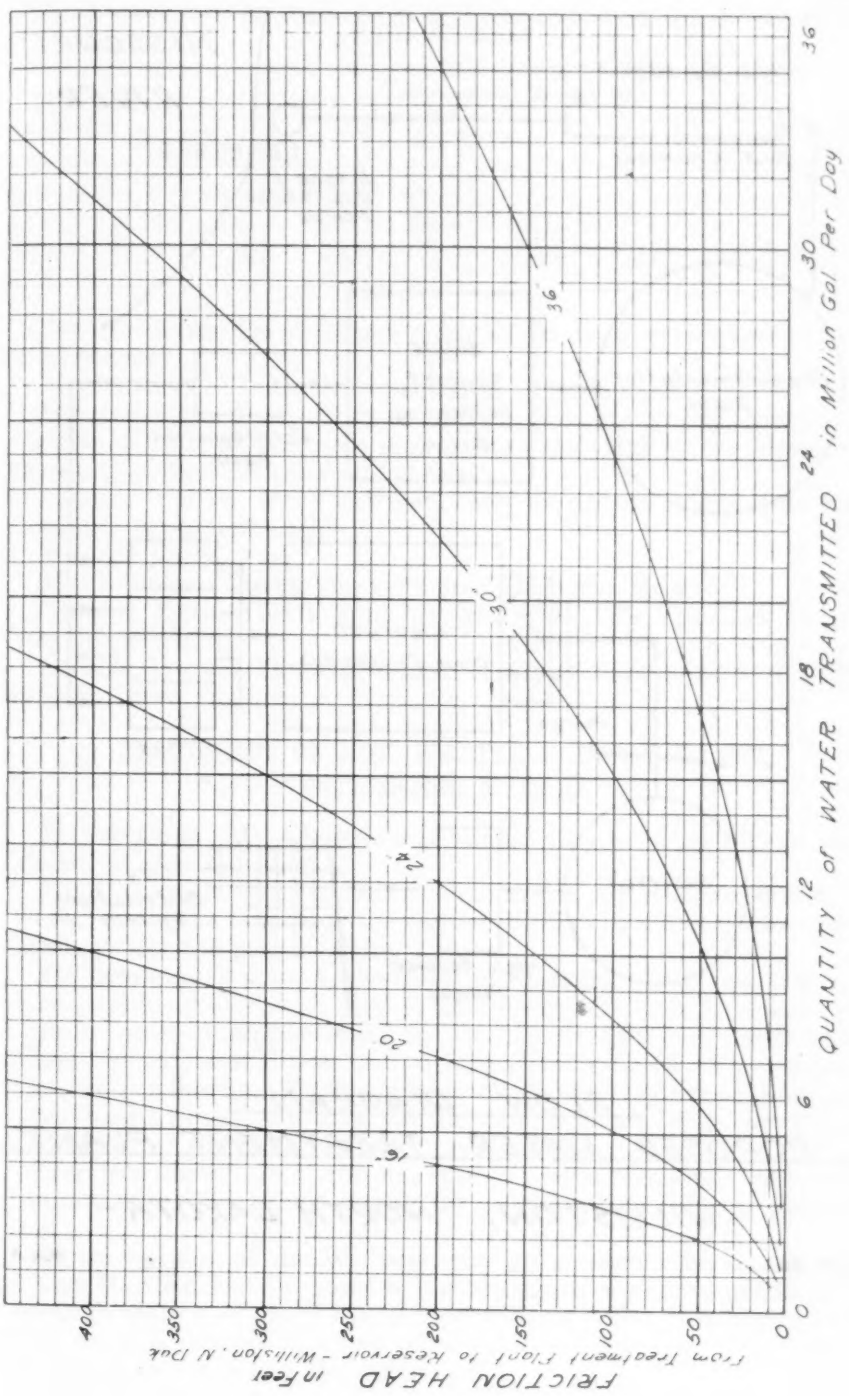
H. L. GRIMSTVEDT,
City Auditor.

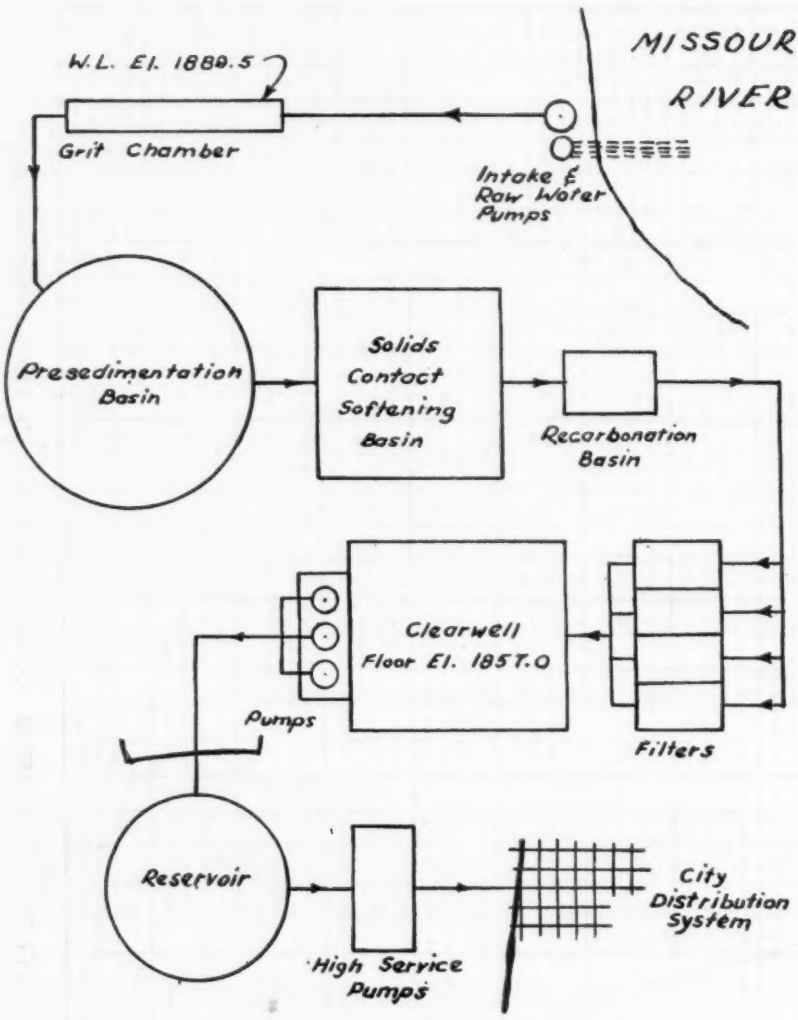
EXTRA RAW WATER PUMPING COST

Extra static pumping head for raw water at bridge plant site over present plant site is approximately 30 feet.

Cost for lifting water 30 feet at 1 cent per kilowatt-hour

Million gallons per day	Per day	Per year	Million gallons per day	Per day	Per year
3	$3.78	$1,379.70	24	$30.24	$11,037.60
6	7.56	2,759.40	30	37.80	13,797.00
12	15.12	5,518.80	36	45.36	16,556.40
18	22.68	8,278.20			


FRICTION HEAD in Feet
From Treatment Plant to Reservoir - Willshire, N. Dak.
400
350
300
250
200
150
100
50
0
16"
20"
24"
30"
36"
0
6
12
18
24
30
36
QUANTITY of WATER TRANSMITTED in Million Gal Per Day



FLOW DIAGRAM
PROPOSED WATER TREATMENT PLANT
- WILLISTON, NORTH DAKOTA -

7-13-56 M.A.A.

Daily pumping costs for flows of 3 to 36 million gallons per day through various pipeline sizes

Pipe size (inches)	Flow (million gallons per day)						
	3	6	12	18	24	30	36
16	$14.11	$100.77	$730.62				
20	4.41	34.26	248.41				
24	1.76	14.11	100.77	$322.00			
30	.60	4.53	33.76	106.00	$246.00	$466.00	$780.00
36	.25	1.84	14.11	44.60	101.00	189.00	318.00

Senator KERR. Do you have a statement from your public-health department?

Mr. BURDICK. That will be presented by the mayor.

Senator KERR. I am going to suggest, Senator Young, that in the matter of time, unless there is some new material by the other witnesses, that they file their statements.

Senator YOUNG. Mr. Chairman, may we call on 2 witnesses for a 1-minute statement each?

Senator KERR. Yes.

Mr. BURDICK. Thank you very much, Senator Kerr.

Senator KERR. Thank you, Mr. Burdick. We are glad to have you this morning.

Senator YOUNG. The next witness is Mayor Walter Burk of Williston, N. Dak.

STATEMENT OF HON. WALTER O. BURK, MAYOR, WILLISTON, N. DAK.

Mayor BURK. Mr. Chairman, I should like to make a very short statement this morning.

Mr. Chairman, members of the committee, my name is Walter O. Burk. I am the mayor of the city of Williston, where I have practiced law for the past 28 years.

My community is an agricultural community. Our two principal farm products are small grains and livestock. Our livestock feed supply has been supplemented by the hay produced on the Missouri River bottom, in addition to two irrigation projects. The Garrison Reservoir is flooding 90,000 acres of our Missouri River bottom land. The United States will flood the Lewis and Clark irrigation project and a part of the Buford-Trenton project.

Garrison Reservoir, therefore, creates a great economic loss to our community. We are not asking for compensation for this economic loss.

In the opinion of the Williston city government, the amount that Judge Burdick has discussed will compensate our city and fulfill the legal obligation of the Federal Government. The new water plant that we will require will cost more than this amount. The city of Williston offers to pay the difference.

Attached to this statement you will find two letters from the United States Public Health Service, which represents its attitude, and a statement from the State Health Department of North Dakota.

You will note from the statement of the State Health Department of North Dakota that it is opposed to the expansion of our present

water treatment at its present site. Under the laws of North Dakota we cannot expand our water plant without the approval of the Health Department of North Dakota.

Since the State Health Department of North Dakota refuses to permit the city to expand our water plant at its present location, we have no choice but to move that plant.

Mr. Chairman, I have some papers here, an office memorandum, and a report from the United States Public Health Service which I would like to have incorporated into the record.

Senator KERR. Without objection, that may be put in the record at this point.

(The matter referred to follows:)

UNITED STATES GOVERNMENT,
DHEW REGION VI,
Kansas City, Mo., April 20, 1956.

Office memorandum.
To: Chief, Division of SES, BSS, PHS.
(Attention, Chief, water supply and water pollution control program)
From: WS and WPC activities.
Subject: Williston, N. Dak., municipal waterworks as influenced by Garrison Reservoir.

My report to the Corps of Engineers, dated January 10, 1956, relative the above-captioned subject has been reviewed in light of the March 1956 report on this matter by consultants to the Corps of Engineers. My report would have been improved if the phrase "the possibility of" had been inserted in line 7, paragraph 2, page 2, preceding the words "high ground water levels."

The consultants' report allows no value for the existing well system, which is used to supply water as needed above the peak plant capacity of 1.6 million gallons per day, on the basis that well water does not meet Public Health Service drinking-water standards for chemical quality. These standards are intended to reflect desirable quality, and do not establish prohibitive limits. Many municipalities in North Dakota of necessity depend wholly upon water supplies that have greater concentrations of dissolved solids, sulfates, hardness, alkalinity, and iron than does water from the municipal wells at Williston. Dilution of well water with treated river water provides substantial reduction in the concentration of objectional chemical constituents. The mixing of 1.6 million gallons per day of surface water with a maximum of 1.5 million gallons per day of well water provides dilution which results in essential compliance of the blended water with Public Health Service drinking-water standards. The wells thus make possible an important increase in plant output during critical periods that would remain available to an enlarged facility at this location. The wells also have value as an emergency or standby facility.

The consultants' report is predicated upon unquestioned reliance and complete dependability of the proposed protective works, this qualification being stated several times in the report. While I have the greatest respect for the competence of the Corps of Engineers in the design and construction of these works, I doubt that the degree of protection against high ground or floodwater levels in this instance is wholly consistent with the degree of safety currently demanded for public water supplies.

My opinion remains that Garrison Reservoir and attendant works make the existing water plant less susceptible to satisfactory enlargement than previously existed.

GLEN J. HOPKINS,
Sanitary Engineer Director.

REPORT OF EVALUATION—WILLISTON, N. DAK., MUNICIPAL WATERWORKS AS INFLUENCED BY CONSTRUCTION AND OPERATION OF GARRISON RESERVOIR, JANUARY 10, 1956

INTRODUCTION

A reconnaissance review of the Williston, N. Dak., municipal water supply as influenced by the Garrison project was made on December 20–21, 1955. The

review was largely restricted to sanitary engineering features. Acknowledgment is made that engineering and other pertinent data were obtained principally from the Corps of Engineers, the North State Department of Health, and representatives of the city of Williston.

BACKGROUND INFORMATION

The Missouri River serves as the principal source of Williston's water supply. A single 12-inch line extends from the intake structure into the river channel. Two intake pumps have a rated capacity of 700 and 1,000 gallons per minute, respectively. A 12-inch line serves the treatment plant about 12,000 feet away. The treatment plant is of conventional design, constructed in 1932. Twin settling basins, having a total capacity approximating 1.5 million gallons per day, are provided with desilting drains. Water is pumped from sedimentation to mixing basins served by mechanical chemical feeders, then to a Dorr-type clarifier 26 feet by 26 feet by 10 SWD. This is followed by a second sedimentation basin and rapid sand filters discharging into 2 clear wells having a total capacity of about 0.5 million gallons per day. High service pumps have rated capacities of 500, 700, and 900 gallons per minute, respectively.

The treatment plant has a rated capacity of 1.17 million gallons per day based upon the conventional operating rate of 2 gallons per square foot per minute. This permits temporary operation at a rate of about 1.6 million gallons per day. A system of wells, discharging either to treated water storage or for processing through the plant, provide additional water approximating 1.5 million gallons per day. Maximum actual daily delivery of treated water to system storage is reported as 3.1 million gallons per day. The floor elevation of the treatment plant approximates 1,850.

Williston had a 1950 population of 7,387. Rapid growth has occurred since development of petroleum resources in the Williston Basin was initiated. Williston serves a wide trade area in which the Williston Basin oil development is centered. On December 21, the mayor reported the present population to approximate 12,000. This growth has taxed the municipal water plant and rationing of water has been necessary on occasions. Municipal officials expect added population increase and anticipated industrial development to substantially add to present water demands in the very near future. From limited observations and contact with State and local representatives, it is concluded that Williston has reasonable prospect for growth and development at a rate somewhat higher than is expected to prevail for the State of North Dakota.

INFLUENCE OF GARRISON RESERVOIR UPON EXISTING FACILITIES

Intake and raw water transmission line

The existing intake is located at a point where extensive silt deposits are expected to develop from reservoir operation. Siltation would seriously complicate use of the existing intake, and in all probability make it inoperative. The most reasonable alternative appears to be relocation of the intake structure at a point upstream from heavy silt deposition. The logical point of relocation seems to be the restricted channel where Highway 85 crosses the Missouri River. Relocation of the intake to this point would require about 28,000 feet of transmission line to serve the existing water plant located at the edge of town.

Treatment plant

A relocated intake and a new transmission line would permit continued operation of the existing plant, if levees are provided with an extensive system of interior drainage by pumping. Levees and interior drainage will be necessary for reasons other than continued operation of the existing water plant. As the present plant is admittedly inadequate for current needs, thought has been given to its enlargement. Much of the duplicated facility would of necessity be subjected to high ground water levels, particularly at times when pool level of Garrison Reservoir approaches the 1,850 level. It is a general sanitary engineering practice to require that all portions of new waterworks construction, involving purified or partially purified water not subject to positive pressure, be located above anticipated ground water levels. This is intended to preclude the possibility of unpurified water entering the facility in the form of seepage through cracks, construction joints, and similar defects. A new plant providing this safeguard would require special precautionary measures that would essentially result in two separate and distinct water plants, rather

than the integrated operation of the new and old portions as a single facility. The State department of health has recommended against enlargement of the existing facility, but has advised that its continued utilization will not be opposed. This action is considered consistent with normal State health department procedures and general sanitary engineering practice.

Without question the Garrison project has made the existing water plant much less susceptible to satisfactory enlargement.

The two factors, unsuitability of the present plant for satisfactory enlargement, and its current inadequacy, in combination, make it advisable that a new water plant be constructed at a different location.

Opinion regarding individual segments of waterworks replacement facilities

Raw water intake.—The present intake consists of one 12-inch pipe into the river. A new facility having two inlet pipes would be highly desirable. An intake adequate for the maximum anticipated future needs of the city would cost but little more than a facility designed only for present needs. The larger facility would be consistent with sound engineering practice. As the cost of the larger facility will not be materially higher, it is recommended that the intake structure and structure-to-river piping permit an ultimate capacity of 12 to 18 million gallons through future addition of more or larger pumps.

Transmission line.—Like the intake structure, a transmission line is not susceptible to future enlargement without virtual duplication of the original expenditure. Substantial increase in capacity can be obtained with only moderate increases in original construction costs. Good engineering practice thus dictates that a transmission line be made adequate to meet any increased demand that may be reasonably anticipated. We are of the opinion that the line as constructed should permit transmission at a rate of (*a*) 6 million gallons per day with reasonable pumping costs, (*b*) 9 million gallons per day without excessive costs and (*c*) up to 12 million gallons per day for short periods of time without exorbitant costs.

The following tabulation lists friction losses for 28,000 feet of transmission line of various sizes under several pumping rates.

Friction loss in 28,000 feet of pipe

[C=140]

Pipe size (inches)	Pumping rate in million gallons per day			
	4	6	10	12
16	102	216	555	780
18	57	121	311	437
20	34	73	185	263
24	14	30	77	107

A 20-inch line is recommended as providing a proper balance of reasonable first cost, economical pumping, and future increase in water demand.

WATER-PURIFICATION PLANT

(*a*) *Type*

Until recent years water plants handling Missouri River water were required to provide presedimentation, chemical mixing, long-term coagulation and flocculation, sedimentation, filtration, chlorination, and finished water storage. Williston's plant is of this type, and in addition, provides fluoridation, softening, and stabilization.

In recent years treatment has been somewhat modified to permit less costly facilities. The sludge-blanket type of plant, which concentrates coagulation, flocculation, and clarification in a single unit, has become accepted. While considerable less in original cost, this process requires close chemical balance and more expert operation. As the process may be thrown out of balance with changes in raw water quality, these plants were long considered applicable only for the treatment of ground water, where chemical character, temperature, and turbidity are quite uniform. Adaptation of this process to surface waters of variable characteristics has been successful where competent operation and close supervision is provided.

The sludge blanket-upflow process should be acceptable at Williston if need is recognized for continuously providing competent supervision and operation.

(*b*) *Capacity*

The present water system, when producing 3.1 million gallons per day, was inadequate to meet peak demands during the summer of 1955. Rationing of water was necessary. It is thus obvious that current needs can be met only through a capacity of approximately 4 million gallons per day. Provision for reasonable expansion would require about 5 million gallons per day of capacity. In view of the Williston Basin development and resultant expectant growth of the city, a 6-million-gallon-per-day plant would not be unreasonable at this time.

Needs above this level would develop in the unpredictable future. In our opinion, they could best be met by additions to an original plant of five or six million gallons per day capacity. Any waterworks facility constructed today should be designed with ultimate enlargement contemplated. We recommend that consideration be given to a plant designed for 5 million gallons per day at the conventional rate of 2 gallons per square foot per minute of filter area, with provision for peak overloading to 6 million gallons per day.

(*c*) *Federal responsibility*

Determination of the degree or extent of Federal responsibility for the new plant would be exceedingly difficult, and will not be attempted here. Two parameters are, however, obvious: (*a*) The Garrison project has rendered the existing treatment plant less suitable for enlargement than previously prevailed, and (*b*) provision of an entirely new facility, at a new location and of capacity adequate for reasonable future needs, would constitute a replacement facility greatly above the level of replacement without betterment.

Respectfully submitted.

GLEN J. HOPKINS,
Sanitary Engineer Director.

STATEMENT OF WILLIS VAN HEUVELEN, DIRECTOR, DIVISION OF WATER SUPPLY AND POLLUTION CONTROL ON THE RELOCATION OF THE WILLISTON, N. DAK., WATER-TREATMENT PLANT, JULY 14, 1956

The North Dakota State Department of Health, by State law, has jurisdiction in the approval of plans and specifications for any additions or replacements to a municipal water system or treatment plant. Plans for such facilities must be approved before construction begins. Accordingly, our department has a legal responsibility, as well as a public-health obligation, in the case of a safe water supply for Williston, N. Dak. Our position, after due consideration of many technical questions, can be plainly pointed out in the following three statements:

(1) We feel expansion of the Williston, N. Dak., water-treatment plant at its present location is poor engineering, very undesirable, and is against the established approval policy of our department.

(2) The present water-treatment plant is inadequate to serve the needs of the city of Williston and must be expanded. Until such time as this can be accomplished, we will permit operation at the present site. Although we do not feel that the present location of the plant when diked is desirable, we would hardly be justified in requiring discontinuation of its operation so long as it is capable of doing a satisfactory job.

(3) If any proposal of supplementary diking for the water plant as a means of protecting and insuring a safe water supply were considered, we agree that, if properly constructed, this would remove many of the hazards of the present site and then meet our qualified approval. However, in our opinion, this is poor engineering and strongly urge that a secondary dike not be built. The cost of building (approximately $100,000) and maintaining this extra dike is poor business. In the matter of health, we want the best installations possible. Why locate a plant in an area that admittedly needs protection when another very desirable site is readily available? If the plant were double diked it would be necessary to include an extensive dewatering system within these dikes. This would involve a continuing operation expense to the Federal Government. Plant construction costs would also be higher in this area because special precautionary measures in plant design and construction would be required. Our objection is not to the site as such, but to the placing of a water plant behind a levee or dike

and depending on such for protection against flooding. This is not good public-health practice and is contrary to our regulations.

One of the most important aspects of the decisions regarding the site of a water-treatment plant at Williston has to do with public health and the approval of the plans and specifications by the North Dakota State Department of Health. Brief investigations of this problem have been made by parties without consideration of State law, health-department rules and regulations, and the attitudes of health officials of North Dakota. After construction of such a plant, it will operate to produce water for many years. During this time, it will be the responsibility of our department to make certain that a pure product is given to the people of Williston. To assure that this long-time operation will be satisfactory, this department believes that the plant should be located in an area where health hazards will not exist.

No compromise should be made in the matter of health. No doubt a few dollars can be saved by expanding facilities at the present site. However, when dealing with an essential item such as pure drinking water, we cannot gamble with safety. If double dikes are necessary at the present site of the water plant, we are admitting a health hazard, and must recognize that during extreme conditions, a possibility of flooding exists. Our department, when considering the requirements for a safe water supply for 12,000 people, wants a water-treatment plant located in a secure area where flooding is not a problem, even in the extreme conditions.

W. VAN HEUVELEN,
Director, Division of Water Supply and Pollution Control.

Mr. BURKE. I should like to call to the attention of the committee, one statement in the report of Mr. Hopkins, in which he is referring to the consultant report of the Army engineers. Mr. Hopkins states:

I doubt that the degree of protection against high ground or floodwater levels is wholly consistent with the degree of safety currently demanded for public water supplies.

So, briefly, we are in the position of having the United States Public Health Service and the State health department stating that that is not sufficient, to enlarge our present plant, and the Army engineers say you must keep it there.

Thank you, Mr. Chairman.

Senator YOUNG. The next witness is Mr. Harry Polk, editor and publisher of the Williston Herald.

STATEMENT OF HARRY POLK, EDITOR AND PUBLISHER, WILLISTON HERALD, WILLISTON, N. DAK.

Mr. POLK. Mr. Chairman, it is a very real personal pleasure connected with appearing before your committee, because you undoubtedly recall when I happened to be president of the National Reclamation Association, at our convention in Oklahoma City, you were the chief speaker, and so I am confident you recall it very much.

I think it is extremely courteous of you to hear us this morning, and all I want to do is call your attention to Public Law 534 of the 78th Congress, which dealt with the authorization for construction of public works for flood control and for other purposes, and has to do with that matter.

One thing I wanted to call particular attention to is the amendment, the O'Mahoney-Millikin amendment to which I should like to refer, which says as follows:

(b) The use for navigation, in connection with the operation and maintenance of such works herein authorized for construction, of waters rising in States lying wholly or partly west of the 98th meridian, shall be only such use as does not conflict with any beneficial consumptive use, present or future,

in States lying wholly or partly west of the 98th meridian, of such waters for domestic, municipal, stock water, irrigation, mining, or industrial purpose.

North Dakota does lie west of the 98th meridian, and the provision definitely states that such use shall not conflict with the use of the water for domestic, municipal, or industrial purposes.

We contend, Mr. Chairman, that it is in direct contradiction to the O'Mahoney-Millikin amendment because of the fact that it has an admittedly adverse effect on our city and our domestic water supply.

The very fact that the Government is now pursuing an irrigation purposes study is an admission that it has an adverse effect on our irrigation problems, which we are going to mention, and then the very fact that dikes are proposed to protect the city, and the fact that health department does not approve indicates very clearly that that is very much contradictory to the O'Mahoney-Millikin amendment.

I merely wanted to get that into the statement.

Senator KERR. Do you have a further statement there that you would like to file?

Mr. POLK. I would like to reserve the right.

Senator KERR. Yes, you may.

Senator YOUNG. Mr. Chairman and members of the committee, I want to thank you for giving us this time, and hope you will act favorably and in line with other amendments which I got in the downstream amendments.

Thank you, Mr. Chairman.

Senator KERR. Thank you, Senator Young, and your fine witnesses from North Dakota.

We will now hear from the Corps of Engineers on projects which were listed on yesterday's agenda, and coming on through those to today's agenda.

I believe No. 1 is the Missouri River at Williston, with reference to relocation of the water supplies.

STATEMENT OF GEN. EMERSON C. ITSCHNER, CORPS OF ENGINEERS

General ITSCHNER. This amendment to H. R. 12080 is identical with H. R. 10990, upon which we testified before the House Public Works Committee earlier this summer. The Department of the Army is opposed to the amendment.

It takes this position regretfully in view of the splendid spirit of cooperation and helpfulness and friendliness that we have had from Senators Young and Langer, and Congressman Burdick and the people of Williston and the officials of that town.

The purpose of the bill is to provide for the payment by the Corps of Engineers to the city of Williston for the construction or provision of water supplies and water treatment facilities at a cost not to exceed $2,200,000 as compensation for the alleged damage to existing facilities as a result of the construction and operation of Garrison Dam. This amount would provide a completely new water intake and raw water main with a capacity of 36 million gallons per day, and a desilting basin, grit chamber and water treatment plant with a capacity of 6 million gallons per day.

The Chief of Engineers has proposed and has the authority and funds to provide a new water intake and raw water main, which proposal would constitute an equitable and reasonable settlement for re-

placement of facilities affected by the Garrison project. The estimated cost of this work is $686,000. You will notice that the Corps of Engineers does not propose to provide a new water treatment plant. The capacity of this system would be 3 million gallons per day, and it would include an intake in the river, a wet well on the bank, a grit chamber, mechanical desilting facilities, and a 16-inch cast iron raw water main.

This proposed work constitutes a generous settlement when it is realized that the facilities replaced consist of a 1,600,000-gallon-per-day intake and raw-water main 12 inches in diameter, constructed in large part of pipe inferior to the cast-iron pipe proposed as a substitute. However, the improvement is justified as compensation for the longer distance water must be pumped in the replacement system. The existing system also has 2 wells which are used only when water consumption is high to produce 1,500,000 gallons per day. These wells will still be operable after Garrison Dam is in operation.

Senator KERR. You tell us that insofar as whatever supply they may have had from their water wells, it will be just as available to them after the dam is in operation as it was prior to the installation of the dam?

General ITSCHNER. That is correct.

Senator HRUSKA. May I inquire into that now?

Senator KERR. Yes.

Senator HRUSKA. In that connection, General, what about the reports of the health departments which will not permit them to use those wells? There was testimony here that the United States Public Health Service said they cannot use those wells.

Senator KERR. I thought the health prohibitions against their other water supply was aside from the wells.

Senator HRUSKA. I think it included the wells because they were in the same area. The result, as I understood it—I wouldn't want to be bound by it—my recollection of the testimony was that there was total prohibition of the use of the existing water plant by the two health departments. Have you any comment on that, General?

General ITSCHNER. Our understanding is that the State of North Dakota health department declared that they would not permit the expansion of the present plant in its present location. It is acknowledged that the present plant is inadequate even at this time and should be expanded.

As far as the existing plant is concerned, they would permit the existing plant to remain in operation.

Senator HRUSKA. I don't recall that the witnesses yesterday put into the record the ruling or the communication from the North Dakota public health service department or from the United States Public Health Service. If they have not, may I suggest, Mr. Chairman, that they be procured and put into the record so that we may put our own construction on those rulings rather than depend upon someone else's views.

Senator KERR. By all means.

General ITSCHNER. We have them.

Senator KERR. Will you put them into the record?

General ITSCHNER. Yes, sir.

(The above-mentioned letter is as follows:)

AUGUST 17, 1955.

R. D. FIELD,
Chief, Engineering Division,
Corps of Engineers, United States Army,
Garrison District, Riverdale, N. Dak.

DEAR SIR: We have your letter of August 5, 1955, which refers to our letter of November 29, 1954, pertaining to the water and sewage facilities at Williston, N. Dak. In your letter you review comments and conclusions arrived at in our previous letter and request that we answer, if possible, with a definite statement as to whether the expansion of the water-treatment plant at its present location would be prohibited by the State.

W feel that this is, to a certain extent, a hypothetical question, and certainly hope that it never gets to a point where the State health department and the State water-conservation commission must take legal action to prohibit the city of Williston from expanding their water-treatment facilities at their present site. It has never been necessary in the history of the State health department, at least to my knowledge, to become involved in any litigation with any North Dakota community in order to force them to build the type of plant we recommend, whether it be a water plant or facilities for sewage treatment. We feel that good sound engineering principles in the field of sanitation are easy to justify, and it is usually not difficult to make a city commission go along with that philosophy. You can see, therefore, that you are asking the State health department and the water-conservation commission to commit themselves on an action in the case of Williston that has never been taken before in the history of the State. As a result, we have no precedent on which to make a statement, and we see no reason in this instance why it should ever come to a point of actually prohibiting the city from acting contrary to sound engineering recommendations. We can, however, be very definite in the statement that we would not approve the expansion of the present water-treatment facility at its present location in Williston, and even though we do not question the corps' ability to design adequate protective works around the city, the plant would still be located within a confined drainage and reservoir area that must be pumped out. It will also be located unnecessary below maximum pool levels.

Actually you can put no interpretation on this letter except that we would use every reasonable means to prohibit the expansion of this plant at its present site.

Sincerely,

MILO HOISVEEN,
Secretary and Chief Engineer
(For the State Water Conservation Commission).
JEROME H. SVORE,
Director of Public Health
(For the State Department of Health).

Senator HRUSKA. Have you any comment on the United States Public Health Service?

General ITSCHNER. Yes, sir. I would like to read one small section of their letter on the subject.

This is their conclusion as to Federal responsibility. They conclude as follows:

Provision of an entirely new facility at a new location, and of capacity adequate for reasonable future needs, would constitute a replacement facility greatly above the level of "replacement without betterment."

Senator HRUSKA. What do they say in that report? That is, the United States Public Health Service.

General ITSCHNER. This particular report is signed by Mr. Glen J. Hopkins, sanitary engineer, Director of the United States Public Health Service in that region, placed in the record yesterday.

Senator HRUSKA. What does his communication say with reference to the existing facilities for water?

Senator KERR. The continued use.

General ITSCHNER. It says:

The Garrison project has rendered the existing treatment plant less suitable for enlargement than previously prevailed.

Senator HRUSKA. Does he say expressly they would not object to its continued use?

General ITSCHNER. He doesn't say that.

Senator HRUSKA. I think that ought to be determined.

Senator KERR. Does he say it shouldn't be continued to be used at present capacity? Is there anything in either report which condemns or indicates the inadvisability of the continued use of the present facility or any part of it at its present capacity?

General ITSCHNER. I do know that the State of North Dakota Public Health Service feels that any water-treatment plant back of a levee constitutes a hazard to the health of a community. We, of course, having had much experience in the lower Mississippi Valley, do not concur in that conclusion.

We did retain a firm of very eminent engineers, the firm of Horner & Shifrin, of St. Louis, to investigate this matter to see whether there really was a hazard to the health of the community in using the existing plant, or even in expanding the existing plant after Garrison Reservoir is filled. I think it would be well, sir, if you would like, to have me incorporate in the record the conclusions only of that report. They are rather short. I could read them. I would like to tell you just the principal thing that they concluded, and that was in answer to a request that they determine whether construction and operation of the Garrison Reservoir project would adversely affect the continued operation of the existing city-owned water-treatment plant. The consultants reported that they do not consider that the construction and operation of the Garrison Reservoir project would adversely affect the continued operation of the existing Williston water-treatment plant with the new intake facility basin and raw water line that we propose to furnish.

Senator KERR. Would that improvement that you propose to furnish take the water to the location of the present plant, or would it bypass it?

General ITSCHNER. It would take it to the location of the present plant.

Senator KERR. Is that what the Health Department of North Dakota advises against?

General ITSCHNER. The Health Department of North Dakota, sir, does advise against expanding the plant in its present location.

Senator KERR. That would be an expansion?

General ITSCHNER. Not necessarily. We feel that they could use the existing plant in its present location, supplemented in summertime by the capacity of the two wells in their present location to furnish all the water that they now have. We do recognize that the city is growing and that in the near future they will have to expand their water-treatment plant. They would anyway, whether the project were built or not. They feel that if they do expand the plant, and in view of the objection of the North Dakota Public Health Service, they must site the expansion to the plant in a new location. Therefore, they will be operating two plants with increased operating costs.

Senator HRUSKA. What does your firm of engineers, retained by you, say with reference to expansion of that plant?

General ITSCHNER. We asked them that question, to determine the feasibility of expanding the existing facilities at their present location. They say:

> From a public-health standpoint, and in recognition of the fact there is adequate space available at the site, the consultants consider that it is feasible to expand the existing facilities at their present location.

Senator HRUSKA. It is feasible physically. Would it be desirable from a sanitation and health standpoint?

General ITSCHNER. That is what I think they meant, sir, because they discuss it in their report, indicating that they feel that there is no objection from a public-health standpoint. They say so.

Senator HRUSKA. One would think if the continued use of the premises there now would be not in violation of health standards, that by making it larger there would not be any violations of desirable health standards. Is that right?

General ITSCHNER. That is what we feel, sir. After we came to that conclusion we hired this firm of very eminent engineers from St. Louis, Mr. W. W. Horner being one of the outstanding engineers in this type of engineering work in the country. He came to the same conclusion.

However, I can understand the position of the North Dakota Public Health Servce because they are not accustomed to having plants located back of levees, and they are afraid that the levees will be overtopped some day and, if they ever are, there is no question about it, there would be a great hazard to the health of the community.

We feel that the chances of such an occurrence are very, very slight. In fact, we feel that it is less apt to occur than flooding of the existing plant under natural river conditions.

If I may continue a little bit, I can cover that very point a little more.

Senator KERR. All right.

General ITSCHNER. The Chief of Engineers considers that there is no justification for the replacement of the water-treatment plant, although the Health Department of the State of North Dakota contends that the site of the existing plant is not suitable for use or for currently needed expansion because they feel it is poor practice to have a water-treatment plant behind a levee, even though water is against the levee less than 5 percent of the time. It should be realized that this plant and the entire town of Williston is at the upper extremity of the Garrison Reservoir and therefore the water does not back up to the town very often.

The State's position is predicated on the remote possibility that the levees could be overtopped, thus contaminating the water supply and putting the treatment plant out of service. Actually, without the reservoir, floods could render the plant inoperative. The outlet of the treatment plant will be flooded from interior damage only one-third as frequently with the protection proposed as it would under natural river conditions. You see, the flooding after the levees are put in place will be due to interior water which has to be pumped out, and would be pumped out, but in an excessive rain there would be some backwater there before the pumps could pump that water out from

back of the levees. That flooding would have a frequency which would be only one-third as great as under natural river conditions.

Senator KERR. In other words, they had that same danger prior to the installation of the levees?

General ITSCHNER. Yes, sir. Three times as great a chance prior to the installation of the levees.

Senator KERR. And, of course, the contamination by water from that source would be a minor problem compared to what it would be if the levee overflowed and the river came in there?

General ITSCHNER. That is correct. There was no levee there at all prior to the construction of the Garrison Dam. We shall start the construction of that levee very soon.

That completes my statement, Mr. Chairman.

Senator HRUSKA. On the map yesterday they indicated the location of a new plant which they could use to the exclusion of the present plant. Does the location of the new plant have any of the defects that this one has?

General ITSCHNER. No, sir. The new plant would be very much more desirable than the existing plant.

Senator HRUSKA. Is it on a higher elevation?

General ITSCHNER. It is at a higher level; yes, sir. It is on a bench in a fine location. If a new plant were to be built, it should be built as they propose it. In fact, the whole system should be built along the lines they suggest.

Senator KERR. Is the authorization they seek enough to pay the total cost of the proposed new plant?

General ITSCHNER. The authorization that they seek, for $2,200,000, would pay for a 6 million gallon per day entirely new treatment plant. In addition to that a 36 million gallon per day intake and a pumping station; a 6 million gallon per day mechanical presedimentation basin, and a 36-inch transmission line from the intake to the plant.

Senator KERR. The reduction of the authorizing from $2.2 million to $1.82 million, what reduction does that make if any in the figures or in the specifications you related?

General ITSCHNER. I am not sure, sir, what that reduction would be designed to delete from the project as I outlined it to you. If the plant were reduced from a 6 million gallon per day——

Senator KERR. Right there, what does their present plant supply them?

General ITSCHNER. Their present plant actually supplies approximately 1,600,000 gallons per day, and with the wells the capacity is 3,100,000 gallons per day.

Senator HRUSKA. That is its maximum capacity?

General ITSCHNER. Yes, sir. The wells are used only in the extremely hot and dry weather in the summer.

Senator KERR. Do the same dangers exist with reference to contamination of the water in those wells as exists with reference to the contamination of their other water supply under the conditions you propose, being back of the levee?

General ITSCHNER. Yes, sir. We feel that there is no greater chance of contamination of the wells.

Senator KERR. Is there as great a chance of contamination of the water?

General ITSCHNER. We think it would be about the same. Possibly a little less after our project is in operation.

Senator KERR. What would it cost to give them a new system supplying them 3,100,000 gallons a day? Approximately.

General ITSCHNER. It will be $1,372,000, according to our estimates.

Senator KERR. In other words, if an authorization of $1,372,000 were made, that would completely replace their present facility with one of equal capacity and with the additional advantage of its being entirely new and of better quality than the one they have?

General ITSCHNER. Yes, sir. And in addition the intake would be for 12 million gallons per day instead of 3 million gallons per day, which is sound from an engineering standpoint. You should construct your intake large enough to take care of future requirements.

Senator HRUSKA. Would that include the transmission line?

General ITSCHNER. Yes, sir.

Senator HRUSKA. How big a transmission line?

General ITSCHNER. Twenty-four-inch transmission line.

Senator HRUSKA. Which is more than they have now?

General ITSCHNER. They have a 12-inch line now. But there should be some compensation to them. And the reason we offered to install a 16-inch transmission line was because of the added length which they would be required to pump.

Senator KERR. They would have an added expense in pumping but if provision were made to replace it with an entirely new facility of equal capacity they would still have their present facility for whatever it was worth; wouldn't they?

General ITSCHNER. That's right, sir.

Senator HRUSKA. They said in their testimony they would abandon it.

General ITSCHNER. I am sure they would because of the increased costs of operating two facilities.

Senator HRUSKA. They can't duplicate operating costs.

General ITSCHNER. That's right.

Senator HRUSKA. We heard a lot of testimony yesterday. My memory may not be too accurate. But I thought I understood them to say that they would ask for an amount sufficient to duplicate in the new location what they have now by way of capacity, and that they would take care of the excess cost for the greater capacity which they are asking.

Senator KERR. I think the only thing they agreed to do—you correct me if I am wrong in this—they agreed to assume the burden of the operation and the pumping which they said would exceed that of their present operation. Is that the way you understood it?

General ITSCHNER. I thought that was true, that they would assume that added cost of operation.

Senator KERR. They were asking us for an operation, as I understood it, to replace the present facility with one that would be of substantially greater capacity than the one they have.

Will you put into the record the exact language of the critical paragraphs in the report of the United States Public Health Service and the North Dakota Health Service?

General ITSCHNER. Yes, sir; those statements have previously been furnished for the record.

Senator HRUSKA. And the consulting engineers which had been engaged by you.

General ITSCHNER. Yes, sir.

(The excerpts referred to are as follows:)

Extracts from the report of Horner & Shifrin, consulting engineers, on the possible effect of Garrison Reservoir on the Williston, N. Dak., water-treatment plant (report dated March 21, 1956):

"It is the consultants' judgment that there is relatively little danger to the plant due to internal flooding or failure of the levee system" (par. 6, p. 15).

"* * * an analysis * * * shows that about 40 percent of the time the natural river would have produced ground-water levels at the plant higher than produced by the ponding behind the levee. It also shows that the maximum level of water surface to which the plant might be exposed will be less with the Garrison project since the maximum ponding level is expected to be 1843.3, whereas the maximum Missouri River flood has been on the order of 1847.5" (p. 190).

"The consultants do not consider that the construction and operation of the Garrison Reservoir project by the Federal Government will adversely affect the continued operation of the existing Williston water-treatment plant with the new intake, desilting basin, and raw waterline as proposed.

"The consultants do not consider that ground-water conditions will be adversely affected by the project to such an extent as to constitute a sanitary hazard at the plant, creating the likelihood of ground-water infiltration into the clear-water storage reservoirs of the plant.

"Actually, they consider that the highest ground-water levels will be reduced because the ponding levels in the interior of the protected areas which constitute the level of relief of ground water will be lower than the flood levels occurring with the natural river.

"The consultants do not consider that the possibility of overtopping of the levee or of internal flood is sufficient to condemn the site.

"From a public-health standpoint, and in recognition of the fact that there is adequate space available at the site, the consultants consider that it is feasible to expand the existing facilities at their present location."

General ITSCHNER. I might read this one portion of the letter written by Mr. Jerome Svore, director of public health of the State of North Dakota, to Mr. Fields, of the Corps of Engineers at Garrison, who was engaged in this study.. He concludes as follows:

We can, however, be very definite in the statement that we would not approve the expansion of the present water treatment facility at its present location in Williston, and even though we do not question the corps' ability to design adequate protective works around the city, the plant would still be located within a confined drainage and reservoir area that must be pumped out. It will also be located unnecessarily below maximum pool levels.

Senator KERR. Who said that?

General ITSCHNER. The director of public health of the State of North Dakota. He also said:

In your letter you review comments and conclusions arrived at in our previous letter and request that we answer if possible with a definite statement as to whether the expansion of the water treatment plant at its present location would be prohibited by the State.

So that first statement I read is in answer to that question.

Senator KERR. Are there further questions on that?

Senator HRUSKA. No.

Senator KERR. The other suggested amendment by Senator Young and Senator Langer had to do with amending the authorization with reference to the acquisition of certain lands in an irrigation area, conditioned, I understood, on buying all of the lands, and they find that one parcel of the land belongs to the State of North Dakota, and they seek an amendment that would save the appropriation they received

and permit them to go ahead but give them the additional time with reference to the one tract owned by the State.

Senator HRUSKA. And which would require legislative action next year by the North Dakota Legislature.

General ITSCHNER. That is correct. The North Dakota Legislature does not meet until early in the calendar year 1957. We are thoroughly in accord with that amendment. We feel it is very desirable in order to permit us to settle this real estate problem with the inhabitants of the Lewis and Clark Irrigation District.

Senator KERR. I have a statement here from the attorney for the Lewis and Clark Irrigation District which will go in the record at this point.

(The statement referred to above is as follows:)

STATEMENT OF WALTER O. BURK, ATTORNEY FOR THE LEWIS AND CLARK IRRIGATION DISTRICT

Senator Young's amendment for the acquisition of the Lewis and Clark irrigation project by the United States, in lieu of protecting the project, provided that all of the landowners must agree to the sale.

The State of North Dakota owns a tract of land consisting of 49 acres on the project, which tract of land is being used for an irrigation experimental substation.

The attorney general of North Dakota has given me an opinion to the effect that it will require an act of our State legislature to sell the experimental substation to the United States. The purpose of the present amendment is to make it unnecessary to secure the approval of the State legislature. Since our legislature won't meet until next year, this would seriously delay the acquisition of the irrigation project.

The landowners on the irrigation district and the district itself join with the Corps of Engineers in urging the passage of the proposed amendment.

Senator KERR. Senator Stennis and Congressman Abernethy are here regarding a project which is not next on our witness list, but since you are here, we will hear from you next.

STATEMENT OF HON. JOHN STENNIS, A UNITED STATES SENATOR FROM THE STATE OF MISSISSIPPI

Senator STENNIS. Mr. Chairman, if I may, I would like to be heard this morning for this Tombigbee River flood-control project, which is a part of the omnibus bill, and Congressman Abernethy, who represents that district of Mississippi, is here.

If I may, I would like to file my statement, Mr. Chairman. And I would like to yield the 10 minutes that I might have to Congressman Abernethy. I am most anxious that the committee hear him.

Senator KERR. We will be glad to hear him, and we would be glad to hear you. The project is included in the present version of the House bill?

Senator STENNIS. That is correct, Senator. It is a new project, and it is a problem of the amount of contribution that is going to be involved.

If you could hear the Congressman on that, I think it would be of great benefit.

Senator KERR. Very well, we will follow your desire on that and will incorporate your statement into the record.

(The statement of Senator Stennis is as follows:)

STATEMENT BY UNITED STATES SENATOR JOHN STENNIS

Mr. Chairman, I certainly appreciate the opportunity to appear before this committee and express my special interest in the flood-control project for the Tombigbee River and tributaries, Mississippi and Alabama. Mr. Chairman, I have been greatly concerned over the serious damage which these floods have caused over the past years. I have given this project careful study and feel that it is a sound and desirable project which offers a practical solution to the flood-control problem of 595,000 people directly affected.

This project has been considered by the Board of Engineers for Rivers and Harbors and by the Chief of Army Engineers and has received their full approval and support.

These floods take a heavy toll each year and are a continuous problem to agriculture and industry in the area. Take, for example, Columbus, Miss., which is located in this basin. The flood stage on the Tombigbee River has been equaled or exceeded 87 times in 60 years of record, an average of 1.5 times per year. Twenty-five of these floods were in a cropping season and five of these caused major destruction. At Columbus, 865 residents and 75 business establishments are in the flood basin on both sides of the Tombigbee River and Luxapalia Creek, and are constantly subject to unexpected and damaging floods.

The Corps of Engineers points out that flooding occurs on the principal tributaries on the average of 2 to 8 times per year, and on minor tributaries on the average of 5 to 14 times a year. The area covered under this project includes 534,900 acres, of which 237,600 acres are along the Tombigbee River. The balance of 297,300 acres are along the tributaries. More than 192,000 acres of this land have been cleared for cultivation and are producing cotton, corn, hay, and other crops which are very important to the local farm economy.

These farmers as well as a number of industries in this basin suffer serious financial loss each year as a result of floods. This project, if approved, will provide needed relief to many people and will offer greater efficiency in production of agricultural crops and livestock.

I have been greatly concerned with the large share of local participation recommended by the Corps of Engineers. Most of the land affected by this project is owned by small, family-sized farmers who are not financially able to contribute 29 percent of the construction costs. The local people are willing to contribute all lands, easements, and rights-of-way necessary for the construction of this project. They are willing to provide at their own expense all roads, highways, bridges, and other utility changes. I consider this to be a fair contribution to the project. These contributions alone will amount to more than a million dollars. The House bill provides for $2,674,200 local participation, which is broken down to include $1,089,200 for land, easements, rights-of-way, bridges, etc., plus $1,585,000 cash contribution. S. 2621, which I originally introduced in the Senate and which is now pending before this committee, completely eliminates the cash contribution, and I strongly feel that the local participation should be limited to providing lands, roads, bridges, easements, and rights-of-way. If these small landowners are required to make a greater contribution, it will be extremely difficult to get this project completed.

Mr. Chairman, I have visited in this area affected by the floods on many occasions and have been greatly impressed with the serious damage inflicted on agriculture and industry in this area. This project is long overdue, and I urge the committee to approve it with provisions for local contributions at a level which will encourage small landowners to fully participate in protecting their land and property from damaging floods.

Senator SPARKMAN. Mr. Chairman, there is one thing which I mentioned in my statement, and I will take just a half minute, and that has to do with Tombigbee, which is carried in section 203 of this bill.

I understand Senator Stennis is going to testify with reference to that. Of course, Senator Hill and I are very much interested in that improvement. The House did one thing, and that is my purpose in bringing it up.

Under the recommendation of the engineers, as I understand it, the local communities, the local area, which is primarily an agricultural

area, and in large part a low-income agriculture area, that area was called upon to make a contribution of almost $7 million.

Senator KERR. You are referring now to Tombigbee?

Senator SPARKMAN. Yes, Mr. Chairman, and the House lowered that figure to a million; I believe it was $1,585,000.

Senator KERR. May I ask what those costs are for?

Senator SPARKMAN. Well, it is a local participation in the flood control and drainage.

Senator KERR. It is a flood-control project such as a dam, or is it a floodway, or what?

Senator SPARKMAN. It involves general flood-control work, cleaning off the land and dredging and snagging trees out and all of these things that usually go into it.

Senator KERR. More of a drainage project than a flood-control project, or a good deal of it is drainage work?

Senator SPARKMAN. Primarily flood control, as I understand it, but the point I was making was with reference to the participation by the local communities, and, as I say, the House did lower that to, if I recall correctly, $1,585,000. The correct figure is shown in the bill.

I want to urge that the $1,585,000, or the House figure, be recommended by this committee.

Senator HILL. Mr. Chairman, may I add I want to endorse what my colleague said in behalf of the Tombigbee project and strongly endorse and support his statement.

Senator KERR. Thank you, gentlemen.

STATEMENT OF HON. THOMAS G. ABERNETHY, A REPRESENTATIVE IN CONGRESS FROM THE FIRST CONGRESSIONAL DISTRICT OF THE STATE OF MISSISSIPPI

Mr. ABERNETHY. Mr. Chairman and members of the committee, my name is Tom Abernethy. I represent the First Congressional District of the State of Mississippi. I am appearing in the interest of and support of flood-control projects for the Tombigbee River and its tributaries.

The Tombigbee Valley drains—I guess that is the appropriate word—about 20 countries in northeast Mississippi and northwest Alabama, and this project has been under consideration now for some 20 years as a result of several reports that were introduced in the House and Senate back in the thirties.

It has been a long time that it has been here, and I doubt that it would have ever reached the Congress, were it not for a violent spring flood the spring of 1955.

Senator, I brought with me some photographs to show you the extent of it. I won't bore you with a discussion of them, but if you would take a look at them while I am testifying, I will appreciate it.

The history of floods in this area is long and damaging. They generally occur in the spring of the year, when rainfalls have in a single storm reached as high as 15 inches.

The character of the country is entirely agricultural. About 73 percent of the land in the area is actually under cultivation.

Senator GORE. Pardon me. Could I ask a question there?

Mr. ABERNETHY. Yes, sir.

Senator GORE. Would the project which you are supporting in your present statement interfere in any way with the future development of the Tombigbee River as a navigable stream?

Mr. ABERNETHY. No, sir; it would not.

Senator GORE. Would it contribute to that project?

Mr. ABERNETHY. I don't think so. I am not absolutely certain about that. My recollection is that the engineers have advised that it would not.

Senator KERR. If I may interrupt, I believe that the Corps could answer that question for us.

General ITSCHNER. I believe, Mr. Chairman, that the effect upon the future navigation project would be rather small. It might have a slight beneficial effect upon the future navigation project.

Senator GORE. No harmful effects?

General ITSCHNER. No harmful effects.

Mr. ABERNETHY. Incidentally, I am interested in both projects. I wouldn't want to do something that would injure either project.

As I stated, Mr. Chairman, this territory is predominantly agricultural. The population in round figures is under the 1950 census, 594,828 people, of which 128,000 is urban and 320,000 is rural farm, and 147,000 rural nonfarm.

The agricultural income in that particular area in 1949—that happens to be the latest figure I have and it was found in the engineers' report—was $74,781,000. The area is inhabited almost entirely by small, very small farmers, cotton being their principal crop.

The average cotton allotment that each family in my own area will receive is 8 acres to the farm, and I understand it is even less than that in the State of Alabama.

Assuming that the average farm family consists of 4 people, they have an income of $936 per year, which is very, very low. If you assume there are 5 in the family, it would be $630 for the year.

There are 22 small streams which feed into the Tombigbee River. The rainfall is very heavy, averaging 50 to 60 inches per year, in spring and cropping seasons. They most generally have these violent flash storms which overflow these farms and, as you have seen, they very materially damage that section of both States, destroying highways and creeping into the villages and towns and in the city of Columbus, which at one time had around 300 homes under flood. I would like to point out from the engineers' report on this project, section 3, page 5:

> No. 3. Floods in the basin occur on an average of once in about 10 years, and are usually caused by widespread winter rainfall. Intense local rainfall produces flooding on the tributaries several times a year. Floods may occur at any time over any part of the basin, but are more frequent in winter and spring. At Columbus, flood stage on the Tombigbee River has been equaled or exceeded 87 times in 60 years of record, an average of 1.5 per year. Twenty-five of the floods were in the cropping season and five were major floods. Flooding occurs on the principal tributaries on an average of 2 to 8 times a year, and on minor tributaries, an average of 5 to 14 times a year.

I would like to read some other sections of the reports, Mr. Chairman, but I will skip some of them.

On the subject of storm characteristics, I see the following:

> Flood-producing storms usually last from 2 to 4 days, and may center over any portion of the basin. With normal runoff conditions, 5 to 6 inches of intense and general rainfall are usually required to produce an extensive flood. How-

ever, on many of the minor tributaries 1 to 3 inches of intense rainfall, which may occur several times a year, are sufficient to produce local floods. Winter and spring floods often cover a large portion of the basin and produce most of the major inundations, while summer storms are usually very intense over much smaller areas, producing serious local floods.

Mr. Chairman, I had intended to refer to several of these, as there are several of interest in the report, and I do hope that you will have a chance to read them.

Senator KERR. I would like for you to address yourself to the question of local contributions.

Mr. ABERNETHY. That is what I am going into right now. And irrespective of what anyone tells you, this is strictly and entirely a flood-control problem. It is true that there is some land enhancement, there is no doubt about it.

Nevertheless, we would be better off if there were no land enhancement because all these people are interested in is getting the annual floods prevented.

Senator KERR. They are like the mouse that is not so much interested in the cheese, but just getting out of the trap.

Mr. ABERNETHY. Yes, that is right, and I think I should end my testimony right there.

The overall cost of the project is $21,873,172. Of that amount the people will require to furnish the lands, right-of-way, the construction of bridges and other fixtures, structures or a total cost of $1,089,800. With this we do not complain, and we will be glad to do it, and make the effort to do it, because it was required that they contribute in cash $6,338,000, and I am concerned with the fact that if these people are required to put up that amount of money, it just means they won't get the benefit because they haven't got it.

The reason they haven't got it is because they are the type of farmers they are, they have small farms, and their income annually is very low.

After all, the average income is only $1,000.

These creeks and streams and the Tombigbee River itself have been constantly filling up for 100 years, and it has just reached an impossible stage down there, and has almost destroyed the very valuable and vital agricultural country.

In bringing this matter to the attention of the Public Works Committee of the House, who were very liberal and very fair—I didn't think they went quite far enough—but by a unanimous vote the Public Works Committee of the House of Representatives relieved the people of that section of 75 percent of the local contribution.

My position here is that I hope you can and will vote to relieve them of the entire cash contribution of a little better than $6 million. I know they will be very happy to supply the other $1,089,800.

Senator KERR. I would like to have some breakdown of just what the contributions they make within that $1 million figure will be used for. Can you tell us that?

Mr. ABERNETHY. That will be to contribute rights-of-way and lands.

Senator KERR. What do you mean by rights-of-way? For what?

Mr. ABERNETHY. You will have to ask the engineers. They are the ones that set the figures and made the estimates. There is Mr. Brennan.

Mr. BRENNAN. The rights-of-way, Mr. Chairman, are those for the channel clearing, snag removing, removing obstructions that will be required throughout the entire project.

Senator KERR. That does not refer to the submerged land in a reservoir area?

Mr. BRENNAN. No, sir; it refers only to the land alongside the bank of the stream.

Senator KERR. Where flood-prevention measures are taken other than in a reservoir area?

Mr. BRENNAN. Yes, sir.

Senator KERR. Very good.

Senator HRUSKA. Are any structures involved here?

Mr. BRENNAN. No; it is only a matter of clearing the bank and improving the channels.

Senator HRUSKA. Does the situation call for any land drain by way of terracing or other means that we find in soil-conservation districts?

Mr. BRENNAN. I see there is an organized movement in that direction right now to do just that, Senator, through these soil-conservation programs.

Senator KERR. Through the soil-conservation program of the Department of Agriculture?

Mr. ABERNATHY. Yes, sir. It is moving slowly, as those things generally do, but there is an organized movement in that section at this time to retard as much as possible the flow of water that is there and to appy all conservation practices possible.

Thank you.

Senator KERR. We are glad to have you here this morning.

Senator STENNIS. Mr. Chairman, in view of the fact that most of the people living in this area are small cotton farmers and due to the greatly restricted cotton acreages allowed, as Congressman Abernathy said, a great percentage of the people in this area are in that group of very low incomes, and you can readily see where this kind of contribution is large to them.

I hope that you can see fit to even better what the House has done on that.

Senator KERR. Thank you very much, Senator.

Senator STENNIS. I would also like, if I may, Senator Kerr, to insert my statement on the Pascagoula Harbor.

Senator KERR. I have a statement from Congressman Carl Elliott, of the Seventh Congressional District of Alabama with reference to the Tombigbee project.

(The statement follows:)

STATEMENT OF HON. CARL ELLIOTT, MEMBER OF CONGRESS FROM THE SEVENTH CONGRESSIONAL DISTRICT OF ALABAMA

Mr. Chairman and members of the subcommittee, I appreciate the opportunity to submit this statement urging that you recommend to the full committee, and to the United States Senate, the authorization for flood-control projects on the Tombigbee River tributaries, Mississippi and Alabama, as reported by the Committee on Public Work of the United States House of Representatives.

Mr. Chairman, the resolutions authorizing the Corps of Engineers to study and report on this matter "with a view to determining whether any improvements of the Tombigbee River and tributaries in the States of Mississippi and Alabama for flood control is advisable at this time" were adopted in 1939. Since then we have had wars, an unbalanced budget, unprecedented defense expenditures

both for our country and our allies all over the world, all of which have prevented further consideration of this vital project.

The flood problem on the Tombigbee and its tributaries is critical. The area has an annual average rainfall of 52 inches, and intense rainfall of from 1 to 3 inches occurs several times each year which produces local floods.

Three of the Tombigbee's tributaries designated for improvement—the Buttahatchie River, the Sipsey River, and the Luxapalila Creek—drain a large area of Marion, Lamar, Fayette, and Pickens Counties. All of these counties are located in the Seventh Congressional District of Alabama which is the district I have the honor to represent in the Congress.

The economy of this region is predominantly agricultural, with some lumbering and manufacturing. The agriculture consists principally of crops such as cotton, corn, hay, and the raising of livestock and poultry.

Damaging floods along the Buttahatchie and the Luxapalila occur 4 to 7 times a year. You can readily see the damage accruing to our farmers in these areas. The annual average flood loss along the Buttahatchie, the Luxapalila, and the Sipsey is approximately $352,000. In addition to the losses from farm production, many miles of secondary roads and bridges are damaged annually and traffic is interrupted.

I feel that the projects for flood control recommended by the United States Corps of Engineers for the Tombigbee and its tributaries are good; that they are economically feasible; and that they should be carried out as soon as possible.

Under the recommendations of the Corps of Engineers, the local citizens who live along the tributaries of the Tombigbee are to cooperate in constructing the project. In addition to contributing a substantial portion of the actual construction costs, the local interests agree to provide without cost to the United States all lands, easements, and rights-of-way necessary for construction of the project; to make, without cost to the United States the changes, alterations, additions, or relocations of any public utility or road made necessary by the work of the project; to hold and save the United States free from damages due to the construction; and to maintain all the works after completion in accordance with regulations prescribed by the Secretary of the Army.

The improvement of the Buttahatchie, the Luxapalila, and the Sipsey tributaries has the support and approval of the people who live in these valleys, and they are ready and willing to do their part. Certainly this project is long overdue, and is necessary to the welfare of the area.

The Corps of Engineers originally assessed an average of 29 percent of the total costs for the improvements to local interests and it was, in my judgment, an excessive amount, an amount that the people of the area could not pay. The House Public Works Committee has reduced the amount of the local contribution from $7,427,800 to $2,674,200, of which $1,585,000 would be in cash.

I respectfully urge that this subcommittee approve authorization of these projects, and I also respectfully urge that you take the reasonable view of the local responsibility involved by agreeing to the recommendations of the House Public Works Committee.

Thank you, Mr. Chairman.

Senator KERR. Yes, Senator Stennis, we will be glad to insert your remarks at this point in the record, without objection.

(The letter of Senator Stennis regarding Pascagoula Harbor is as follows:)

UNITED STATES SENATE,
COMMITTEE ON ARMED SERVICES,
June 6, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Senate Public Works Committee,
Senate Office Building, Washington, D. C.

DEAR SENATOR CHAVEZ: I am enclosing a draft of proposed legislation which would authorize reimbursement of $44,000 to the Board of Supervisors of Pascagoula, Miss., for work done within the limits of the Federal portion of the Dog River Cutoff. You will remember that the Dog River Cutoff in the Pascagoula Harbor was authorized in Public Law 516, the River and Harbor Act of 1950, in accordance with House Document No. 188, 81st Congress. However, the funds for this project were never appropriated.

Because of the urgency of this work, the Pascagoula Board of Supervisors, after waiting several years, decided to proceed with the construction of this

project and to apply for a refund at a later date. The Dog River Cutoff project was performed under the supervision of the United States Corps of Engineers at a cost to the Pascagoula Board of Supervisors of $61,000. I understand that the United States engineers would favor the adoption of this proposed legislation.

Since this project has been approved and authorized by the Congress as being feasible and the construction was actually performed under the supervision of the Corps of Engineers, I believe that the reimbursement for this work is fully justified. I hope that it will be possible for you to bring this matter before your committee and have it included in the omnibus public-works bill.

With best wishes, I am

Sincerely yours,

JOHN STENNIS, *United States Senator.*

Senator KERR. Now we will hear from the corps on Pascagoula Harbor, Miss.

I would like to put in the record at this point a proposed amendment and statement by Senator Stennis, of Mississippi, with reference to this matter.

(The documents referred to above follow:)

COMMENTS ON DOG RIVER PROJECT BY SENATOR STENNIS BEFORE PUBLIC WORKS COMMITTE, JULY 17, 1956

Mr. Chairman, I would also like to say a word about a proposed amendment which I have already outlined in a letter to the chairman. This provision would authorize reimbursement of $44,000 to the Board of Supervisors of Pascagoula, Miss., for work done within the limits of the Federal portion of the Dog River Cutoff. The Dog River Cutoff in the Pascagoula Harbor was authorized in Public Law 516, the Rivers and Harbors Act of 1950, in accordance with House Document No. 188, 81st Congress. However, the funds for this project were never authorized.

Because of the urgency of this work, the Pascagoula Board of Supervisors, after waiting several years, decided to proceed with the construction of this project and to apply for a refund at a later date. The Dog River Cutoff project was performed under the supervision of the United States Corps of Engineers at a cost to the Pascagoula Board of Supervisors of $61,000. I understand that the United States Corps of Engineers would favor the adoption of this proposed amendment.

Since this project has been approved and authorized by the Congress and the construction was actually performed under the supervision of the Corps of Engineers, I believe that authorization which would provide for the reimbursement of this work is fully justified. I hope that it will be possible for the committee to include this authorization in their omnibus bill.

PROPOSED AMENDMENT

SEC. That the improvement of Pascagoula Harbor, Dog River Cutoff, Mississippi, authorized by the River and Harbor Act of 1950, in accordance with the recommendations of the Chief of Engineers in House Document Numbered 256, Eighty-first Congress, is hereby modified to provide that the Secretary of the Army shall reimburse local interests for such work as they may have done on this project within the limits of the Federal portion of the project, over and above the work required as a part of the local cooperation for the project, insofar as the same shall be approved by the Chief of Engineers and found to have been done in accordance with project modification adopted in said Act: *Provided,* That such payment shall not exceed the sum of $44,000.

Senator HRUSKA (presiding). General Itschner, may we now proceed to a showing on Pascagoula Harbor, Miss.?

General ITSCHNER. Mr. Joseph Brennan will cover that project.

Mr. BRENNAN. Mr. Chairman, there is no report and no map on this matter. It involves a relatively simple case of reimbursement for work which has been undertaken by local interests in accordance with a federally authorized project.

The location of the navigation project is Pascagoula Harbor, Miss. The project provides for a deep water channel from the Gulf of Mexico

through the Mississippi Sound to Pascagoula and on up the Pascagoula River and thence on up the Dog River.

In 1950 the project was modified by addition or substitution of a short cutoff channel through two of the inner lakes to eliminate a tortuous stretch of Dog River. The estimated cost of the project as reported and approved in 1950 was $41,000. Subsequent to the authorization local interests who had great need for this navigation channel proceeded on their own to dredge the portion of the channel which went through the two lakes I referred to, known as Robertson Lake and Bounds Lake.

Instead of dredging to the project depth of 12 feet, which was the authorized depth, they dredged to a depth of 18 feet, and they now seek reimbursement for that portion of the cost which would be represented by the dredging to a depth of 12 feet.

The total amount of material removed by the local interests was 567,000 cubic yards, and that was to the 18-foot depth. The total cost to them was $63,000, or a unit cost of 11.1 cents per cubic yard.

We estimate that the total amount of yardage to be removed to the 12-foot depth would amount to 378,000 cubic yards. At that same price of 11.1 cents the total would be $42,000.

The matter has not been referred to the Chief of Engineers officially but the district office of the Corps of Engineers in this locality at Mobile is familiar with the situation and has reported to the Chief of Engineers that the work has been performed in accordance with the plans and along the alignment contemplated in the authorized project.

Senator HRUSKA. Are we to understand then, Mr. Brennan, there is no report of the Chief of Engineers on this item?

Mr. BRENNAN. That is correct, Senator Hruska.

Senator HRUSKA. Has there been reference of the item to the Bureau of the Budget?

Mr. BRENNAN. No, sir; this item, as far as the Chief of Engineers knows, has not been referred to the Bureau of the Budget.

Senator HRUSKA. Is there any precedent for payment of this kind for work done and on a retroactive basis?

Mr. BRENNAN. Yes, sir; there are precedents in previous legislation. I might call the chairman's attention to the present bill, the omnibus bill, H. R. 12080, which contains two items of retroactive reimbursement of the same nature contemplated in the proposed amendment.

Those two items are at Apalachicola Bay, at St. George Island, Fla.

There is one factor I think, which should be brought to the committee's attention, and that is the matter of local cooperation in the federally authorized project. The local interests have agreed to provide lands and rights-of-way, and spoil disposal areas necessary, and are now seeking to fulfill that obligation but as of this time have not been able to obtain clear title to the lands and spoil disposal areas that would be required prior to the Federal Government's taking over the project if this amount of reimbursement were to be authorized.

So it is possible that the committee might wish to consider a modification to the proposed amendment which would require that the terms of local cooperation contemplated in the authorizing act be met before the reimbursement is made.

Senator HRUSKA. Will the staff take note of that, and we will have it for consideration later on.

In other words, your thought is that the authorization and the actual approval of that reimbursement would be conditioned upon full compliance with the authorization as originally issued?

Mr. BRENNAN. That is correct, Mr. Chairman.

Senator HRUSKA. Are there any questions?

Senator GORE. I have no questions.

Senator KERR. We have the distinguished junior Senator from Oklahoma, and the distinguished junior Senator from Ohio, and also one of our most distinguished Members of Congress, Mr. Kirwan, chairman of the Democratic National Campaign Committee, which does not enhance his standing in some areas of the national scene, but in others it does.

Senator NEUBERGER. Mr. Chairman, I asked Senator Stennis a question just now, and he suggested I ask it of him for the record.

Senator KERR. All right.

Senator NEUBERGER. I asked Senator Stennis just as he was preparing to leave the room what is the total cost of the project which you are seeking to have approved?

Senator STENNIS. The entire cost on this flood-control project is only $19 million.

Senator NEUBERGER. Thank you.

Senator KERR. We also have a matter that Senator Neuberger wants to present, and we are going to get on three of these matters between now and final recess.

I would like to ask first, gentlemen, that you all remember the element of time.

Senator Bender, do you want to make a statement?

STATEMENT OF HON. GEORGE BENDER, A UNITED STATES SENATOR FROM THE STATE OF OHIO

Senator BENDER. I won't make a statement, except that I share the high opinion expressed by the chairman of the work done by Mike Kirwan off the record. I am not referring to his being chairman of the Democratic Campaign Committee, but I am referring to his work as a member of the Appropriations Committee, and as a very substantial number of Democrats and Republicans alike feel very good about him because of his judgment on matters of this kind.

I want to say that this project as explained, or as supported by Mr. Kirwan, concerning Youngstown is, in my opinion, a very meritorious one.

There has been some protest on the part of some farm people, and I don't believe validly, because this area is now forest land, and I think the project is very badly needed.

Youngstown and Akron and Canton are growing industrial communities. Many new businesses, many new industries, are coming into that area, and it is a steel town—and you spell steel s-t-e-e-l.

Senator KERR. At times.

Senator BENDER. But that is the way you spell it in this instance, and Mike Kirwan has the information, and I appreciate the cordial greeting that was extended to him.

I know that every member of this committee, Republican or Democrat, has respect for Mike Kirwan, and I will yield to him now, but I am here as a Republican, as a full-time Republican, now yielding to this full-time Democrat, if you don't object.

Senator KERR. I don't ever object to a gesture of that kind.

Off the record.

(Discussion off the record.)

Senator GORE. Mr. Chairman, could I make a brief observation at this point?

Senator KERR. You certainly could.

Senator GORE. During my service in the House of Representatives I served on a subcommittee of which Congressman Kirwan is chairman. Therefore I speak with some knowledge and experience when I say that this man has contributed more service to the cause of development of natural resources, flood control, navigation, hydroelectric projects, than any other man in the United States Congress, and has asked for and received less in the way of benefits in his own district. On that basis I wish to join my colleague, Senator Bender, before we hear him, in endorsing these projects.

Mr. KIRWAN. Thank you, Senator, and thank you, Mr. Chairman.

Senator KERR. I am just going to make one brief observation on that. That might be an awful good place for you to rest your case. If you want to risk what your statement might do to it, you proceed.

STATEMENT OF HON. MICHAEL J. KIRWAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. KIRWAN. Senator, I know you are in a hurry with the committee, but I am in Congress 20 years, and this is the second time I have ever appeared before a Senate committee, so you know I have not been bothersome.

I spent 18 years in experience on that committee just referred to, and 16 were upon the Appropriations Committee that appropriates for them, so I have a pretty fair knowledge of these projects, and I have visited such projects as the Big Thompson and the Hungry Horse and Grand Coulee and then on down to Shasta, and so on.

Anybody who gets into the clutches of anybody who is working on them really has a job to do getting out of them.

This is not a huge project I am interested in. It is a small one, only costing $14 million. I don't know of any project on earth, not in the United States, that is in this situation. Here it comes on down here for 25 miles, and in that 25 miles there are 500,000 people. There is not one sewage-disposal plant. That river is just a creek, and I want to say it is the most active and best worked river in the United States, let alone the steel plants.

In 1939, or 1937, the capacity of that valley within or shortly before that was the second largest steel center of the country. The capacity was 7 million tons a year. Now it is 11.

It used to be up in the towns above Youngstown that you heard of, and now they are becoming public, they used to have signs, "Flush. Youngstown needs the water." The signs are beginning to appear again, because on hot days you know what they mean from the stench of that creek.

We don't mention water in Youngstown in terms of acres, we speak of water by the pint. It takes 13,000 gallons to make a ton of pig iron, but in Youngstown, Ohio, it takes 61,000 gallons to make a ton of pig iron. It is circulated back and forth and the heat of that water in the Youngstown steel cast iron goes up to 130°.

Testifying in 1938, the head of United States Steel said on that day that they were making enough steel in 1 steel plant to build 2 cruisers a day.

Mr. Chairman, this is not a new project. There were three projects authorized in 1938—Muskingum, Berlin, and Eagle Creek.

When they got ready to build them there was money appropriated for the study, and then we didn't want to waste that, so they said, so they never got any place in that basin on that watershed that we can get some water from. The only place is from the West Branch of the Mahoning River. At that time we needed 278 million gallons a day, which is practically nil in the summertime.

The health authorities of the United States say it has got to be 320 million gallons, so the city of Youngstown is not anywhere up to health standards.

After the reservoir was built, of course, that upped the production to 210 million gallons. It will be 110 million gallons less than over the United States, and we should be going into that situation just to keep the city healthy.

I have an editorial here written by a former Member of Congress who owns and publishes the Akron Beacon-Journal, and I would like to read it into the record.

He also publishes the Detroit Free Press, and several other papers. He had this to say:

> The reservoir is not "a suddenly cooked-up scheme to tap Uncle Sam for a boondoggling project" and is not based solely on flood control. Rather, it has been planned for 25 years, is part of the local conservation system which includes the Berlin and Meander Creek Reservoirs, and is "part of a national program and more specifically a water conservation program."

You go on to and up to 11 million and they are constructing in that valley enough for another million tons of steel. Good heavens, we have not got one-tenth of the water we need in that valley. Every steel plant in the United States—as the Republic at Buffalo, Lackawanna Steel at Buffalo, Bethlehem Steel—is on the water. Some are on big lakes, and 1 or 2 on the coast, but they are on huge bodies of water.

Then the question comes up: How did they ever come to Youngstown? They came there at the turn of the century because they found coal ore and limestone and they needed it, and that went on for 150 years. Over that time we have been building up each year and we are now slipping from just the fourth place, and going backward further and further all the time.

People will come in from a town like Pittsburgh. They do not need the water. Now, the same people probably never saw Youngstown in their life, only to go through it in a pullman car, but the owners and operators of those steel plants say they need it.

They are building a $30 million private powerplant there and they said they need 1,300 million gallons of water today to operate that powerplant to furnish the power and they are only getting 1,700,000 gallons. I again tell you, a city like Pittsburgh, I voted many, many

times and I am glad for every vote I cast for the United States public projects. Every dollar you invest in this great country is coming back hundredfold, and that is my philosophy on it.

But, in Pittsburgh, we spent pretty near a billion dollars dredging the rivers and for protection from floods, and then to have them come in and say you should not spend 5 million from the taxpayers' money in Youngstown. They never tell you about the half billion that has been spent on the city of Pittsburgh to stop it from having floods, carrying the stuff down on boats. I am in favor of all of that and I endorse it on every opportunity, but I again repeat, we need the water in Youngstown and we need it like nobody needs it in the United States.

In my 18 years of appropriating for public works, I do think I have gained a little idea, some knowledge, and a little more than just reading on it. The Akron Beacon Journal said over half of this land the Government wants to buy up in there. Just one-half of it is in farmlands. The rest is in brush.

So, I am saying to you, from the city of Youngstown, Ohio, that paid more taxes than five States in the year of 1922, when she was second in the United States in steel, and all the money that the United States has spent in water in that city is $10 million in 100 and some years. All she is asking the United States to spend now is $5 million for her to continue to be able to pay those taxes and rightfully so to the United States Government.

I am asking this great committee here this morning, I hope in their wisdom, they are going to incorporate into this bill, like they have in the House, the building of the West Branch of the Mahoning River Reservoir, so that not only Youngstown, but this Nation will benefit by it if we ever get into another emergency.

We are in emergencies now. We have people in steel plants allocating steel to preferred customers while we are losing thousands of tons daily in Youngstown, Ohio, for the lack of water to cool the steel plant while rolling the steel and to cool the pipes, and I again repeat, I am asking this great body here this morning, to make every effort to incorporate this in the bill.

I would like to insert this statement in the record.

Senator KERR. Yes, the clippings and the statement by Congressman Kirwan will be made a part of the record.

(The statement and clippings referred to above are as follows:)

STATEMENT BY CONGRESSMAN MICHAEL J. KIRWAN

It is a distinct pleasure to appear before you today to ask your favorable consideration for authorization of a low flood flood-control reservoir project in which I am deeply interested and which, in my judgment, is one that will yield enormous national benefits.

This is the proposed West Branch Reservoir in the Mahoning River Basin in eastern Ohio.

The United States Army Corps of Engineers has recently completed a survey of this project, under a resolution adopted by the House of Representatives Public Works Committee under date of January 6, 1955, and has found it feasible and economically justified, and has recommended its authorization and construction.

This proposed reservoir will provide further protection against devastating floods and against severe droughts, which in the past have caused many millions of dollars of loss in flood damage and loss of production in one of the Nation's most populous and most productive industrial areas. This is the Mahoning Valley, which is one of the most important steel-producing areas, and one that

has been often described as one with the Nation's most acute water problems. The valley is part of the fourth ranking steel-producing district, the one which is smallest geographically of any of the leading steel districts, where more than 8 percent of the Nation's steel, so vital in any war effort and so important for maintaining national prosperity, is produced. Its welfare and prosperity depends upon water—on having enough water at the right times and not too much water at other times.

The Mahoning Valley is not really asking for a new reservoir project. It is merely asking now that this project be substituted for one—the proposed Eagle Creek Reservoir—which Congress has already seen fit to authorize under the Comprehensive Flood Control Act of 1938. Because of some rather extensive and expensive deposits of valuable silica sand in the proposed Eagle Creek Reservoir area, it is considered advantageous to substitute this project, which may be built for about half the cost but would provide substantially the same amount of benefits and protection as would the Eagle Creek project.

During World War II, it was found advisable as valuable to the national war effort to build in the Mahoning River Valley Basin two other reservoirs which had been authorized in the 1938 Flood Control Act. These are the Berlin Reservoir and the Mosquito Creek Reservoir. The valley has two other major non-Federal reservoirs—Meander Creek Reservoir which serves as the domestic water supply for the cities of Youngstown and Niles and therefore provides relatively little low flow and flood-control benefits; and Milton Reservoir, which is owned by the city of Youngstown, is on the upper Mahoning River, just below Berlin Reservoir, and is operated by the Army engineers, under agreement with the city, as a low flow flood-control reservoir.

Mosquito Creek and Berlin Reservoirs already have proved themselves to be wise and prudent investments of the public funds. They helped materially in making it possible for the Mahoning Valley steel mills to produce more steel, relatively inexpensively, to help to win World War II, and, since the war, to provide more steel to lift the national economy to its present high levels. They helped also to insure that these steel mills were not at the mercy of floods and consequently losses of production.

Unfortunately, this rich river valley, which yields the Federal Government hundreds of millions of dollars annually in taxes, still does not have enough protection. Its potential growth is stifled and consequently the growth of its tax revenues also suffers. It suffers from the curse of too much water at times, not enough at others. Its present reservoirs help to conserve the waters in times of too much for the periods when it has not enough. It still needs more.

Last year, the valley suffered from acute drought which seriously impaired the ability of its steel mills and electric powerplants, representing investments of billions of dollars to operate economically and produce steel at a sufficient rate for both the national defense and to meet the demands of the civilian economy. This spring that same valley is suffering from an oversupply of water and is being forced to dump large quantities of valuable water which will be sorely needed later this year. This foolish waste is caused by a shortage of sufficient reservoir space.

I herewith quote from an article which appeared in the Youngstown Vindicator dated May 14, 1956, under the headline "Must Dump 15 Billion Gallons of Water Here."

"MUST DUMP 15 BILLION GALLONS OF WATER HERE

"The soggy Mahoning Valley, taking stock of its water supply problems, today found itself with such a big surplus of water that a major share of its flood-control capacity has been used up and it must dump at least 15 billion gallons which may be urgently needed later by industry, homes, and agriculture.

"The current water problem is considered a major argument for construction of the proposed West Branch Reservoir, both as a low-flow and flood-control project. Representative Michael J. Kirwan is working to get authorization for the project in the current congressional session.

"One tragedy of Mother Nature's overgenerosity this season has been a serious delay in spring plowing and planting on eastern Ohio-western Pennsylvania farms.

"The United States Army Corps of Engineers at Pittsburgh reported today that rainfall in the Mahoning River Valley above the flood-low flow control reservoirs so far as May has been 300 percent above normal and for the last 3½ months

has been 50 percent above normal. The engineers reported 17½ inches of rain fell in the last 3½ months.

Tom L. Reilly, chief hydrologist in the Pittsburgh engineer office, reported this morning that Berlin and Milton Reservoirs contained 10.2 billion gallons, and Mosquito Creek Reservoir 2.7 billion, above normal schedules. Meander Reservoir has a foot of water going over the flashboards atop the spillway, and so has 1 to 2 billion gallons that will be wasted. The flow over the flashboards for a time was 2½ feet, said Luther T. Fawcett, chief engineer and secretary of the Mahoning Valley Sanitary District. The reservoir holds 10 million gallons, but the flashboards add another billion to its capacity.

"BAD FLOOD AVERTED

"Reilly today said that 81 percent of the Milton-Berlin capacity reserved for flood control at this time was filled, and that without the reservoir system, the Mahoning Valley no doubt would have had a serious flood during the last 2 or 3 days. As it was, many fields and even some roads have been flooded. Reilly reported that Berlin this morning contained 28 billion gallons, Milton 8.3 billion and Mosquito Creek Reservoir 29.6 billion. Milton is releasing 339 million gallons a day, and Mosquito 61 million.

"He reported the Mahoning River's flow at Leavittsburg is at the rate of 4,650 million gallons a day and at Youngstown 7,750 million.

"Reilly reported that the river crested at 10 p. m. Sunday at Warren at 7.1 feet over the waterworks dam, and receded to 6.25 feet this morning. The Youngstown crest was 13.3 feet above benchmarks during the night and receded to 12.06 feet this morning.

"Reilly said that engineers will have to fill Lake Milton and spill some water over the spillway for the next 3 or 4 days because of the limited outlet capacity of the dam's works."

The Mahoning River Basin is located in Mahoning, Trumbull, and Portage Counties in eastern Ohio, and Lawrence County in western Pennsylvania. The stream joins with the Shenango River just south of New Castle, Pa., to form the Beaver River. The Mahoning's principal tributaries are West Branch, Eagle Creek, Meander Creek, and Mosquito Creek. The latter two are already dammed and controlled, as are the upper reaches of the main stream. The United States Army Corps of Engineers have stated that the two remaining sources of control are in West Branch and Eagle Creek.

The river drains 599 square miles at Warren, 899 square miles at Youngstown, and 1,129 square miles at the mouth. The average stream slope is 2.2 feet per mile from Milton Dam to Warren, and 2.6 feet per mile from Warren to the mouth. The river's width varies from about 150 feet above Warren to 200 feet at the mouth.

The Mahoning River Valley is densely populated, particularly from Warren to the Ohio-Pennsylvania State line. The high concentrations of population are adjacent to the heavy industrial and commercial development on both banks of the river. The population of the principal cities and towns adjacent to the river, estimated for 1955, are:

City or town:	*Population*
Ravenna, Ohio	9,857
Newton Falls, Ohio	4,451
Leavittsburg, Ohio	2,533
Warren, Ohio	49,856
Niles, Ohio	16,773
McDonald, Ohio	1,858
Girard, Ohio	10,113
Youngstown, Ohio	168,330
Campbell, Ohio	12,882
Struthers, Ohio	11,992
Lowellville, Ohio	2,227
New Castle, Pa	48,834
Counties:	
Trumbull	168,700
Portage	70,220
Mahoning	263,900

The Youngstown district, which includes the Mahoning Valley and the Shenango Valley, ranks as the Nation's fourth largest in steel-producing capacity.

It provides direct employment in iron and steel manufacture of fabrication of approximately 80,000 workmen. In addition another 40,000 are employed in transportation or service industries, retail stores or other employing industries.

As of January 1, 1956, according to the American Iron and Steel Institute records, the district had 11,378,380 net tons of steel ingot producing capacity, or 8.9 percent of the Nation's 128,363,000 tons of capacity. This capacity included 78 open-hearth furnaces, with a rated capacity of 8,999,000 tons; 6 Bessemer converters, rated at 1,689,000 tons, and 9 electric furnaces, rated at 690,380 tons. The district also had 25 blast furnaces with a combined rated capacity of 4,018,000 tons, out of the Nation's 261 furnaces with a rated capacity of 85,485,230 tons. It has 4 coke plants with a rated capacity of 4,018,000 tons of the Nation's 71,508,400 tons of coking capacity.

The Mahoning Valley, because of its shortage of reservoir capacity, makes probably the most intensive use of every available gallon of water of any place in the United States; it represents probably the largest investment of private funds most vulnerable to flash floods.

A United States Bureau of the Census report for 1953 (published in the American Iron and Steel Institute May 1955 issue of Steel Facts) reports that the American steel industry in 1953 used 3,108 billion gallons of water in its various processes; and that about 55 percent was recirculated back into surface water sources.

It reported that more than 57 tons of water (13,757 gallons) were used nationally per ton of pig-iron production. Youngstown Sheet & Tube Co., one of the principal Mahoning Valley steel producers, reports that in 1955 it pumped 54,000 gallons of water per ton of pig iron produced in its Mahoning Valley plants; but at its Campbell Works, which is one of the last users on the Mahoning River, it used 61,000 gallons per ton of pig iron, or nearly 4 times the national average. This much higher use of water is due to the high temperatures of the water at the Campbell Works, thus requiring the greater quantities of water to achieve the same cooling result.

Mahoning Valley industries which pump water from the Mahoning River for cooling and other purposes (including three Ohio Edison Co. electric power generating plants at Warren, Niles, and Lowellville) report they would require an average daily water supply of 1.3 billion gallons if they were to use the water only once. However, the United States Army Corps of Engineers which operates the reservoirs try to maintain a minimum flow of 178 million gallons per day in the river. At this minimum period of flow, each gallon of water must be pumped over and over again 7 or 8 times in approximately a 20-mile flow. The Army engineers had a few years ago set 95° as the maximum desirable temperature of river water at the Campbell Works intake; they were unable to meet that maximum and last year boosted it to 105°. That increase in temperatures has cost the industries hundreds of thousands of dollars annually in increased fuel costs, maintenance, and otherwise lowered efficiency.

The industries, besides Ohio Edison's powerplants, which pump the river water, include Standard Steel Spring Co. and Ideal Foundry at Newton Falls; Republic Steel Corp. at Warren, Niles, and Youngstown; United States Steel Corp. at McDonald and Youngstown; Youngstown Sheet & Tube Co. at Brier Hill and Campbell Works; Pittsburgh Coke & Chemical Corp. at Struthers; Sharon Steel Corp. at Lowellville.

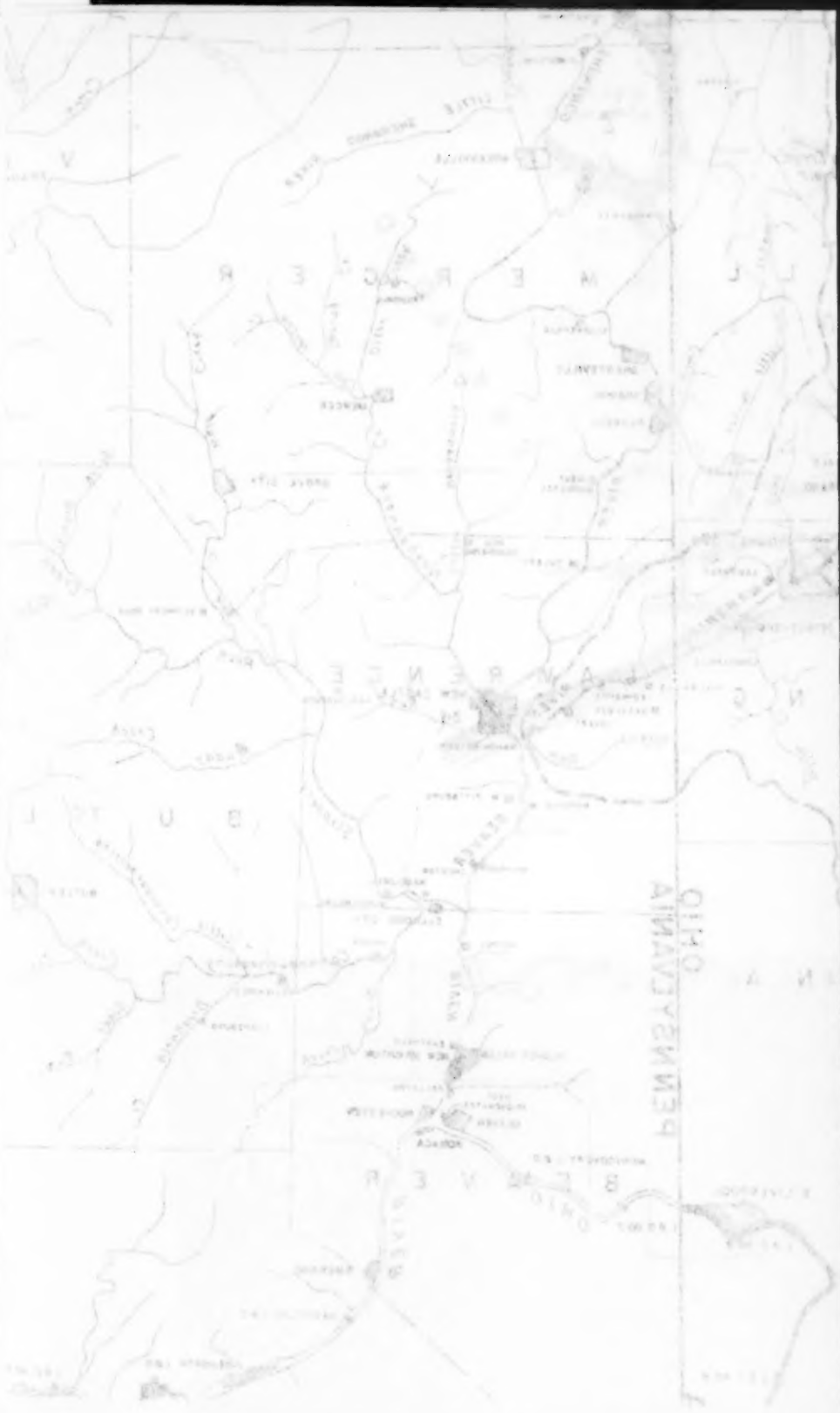
The United States Army district engineer at Pittsburgh recently stated that construction of the West Branch Reservoir would permit increasing the minimum flow from 178 million gallons to 210 million gallons and unquestionably would permit lowering the maximum temperature to 95°.

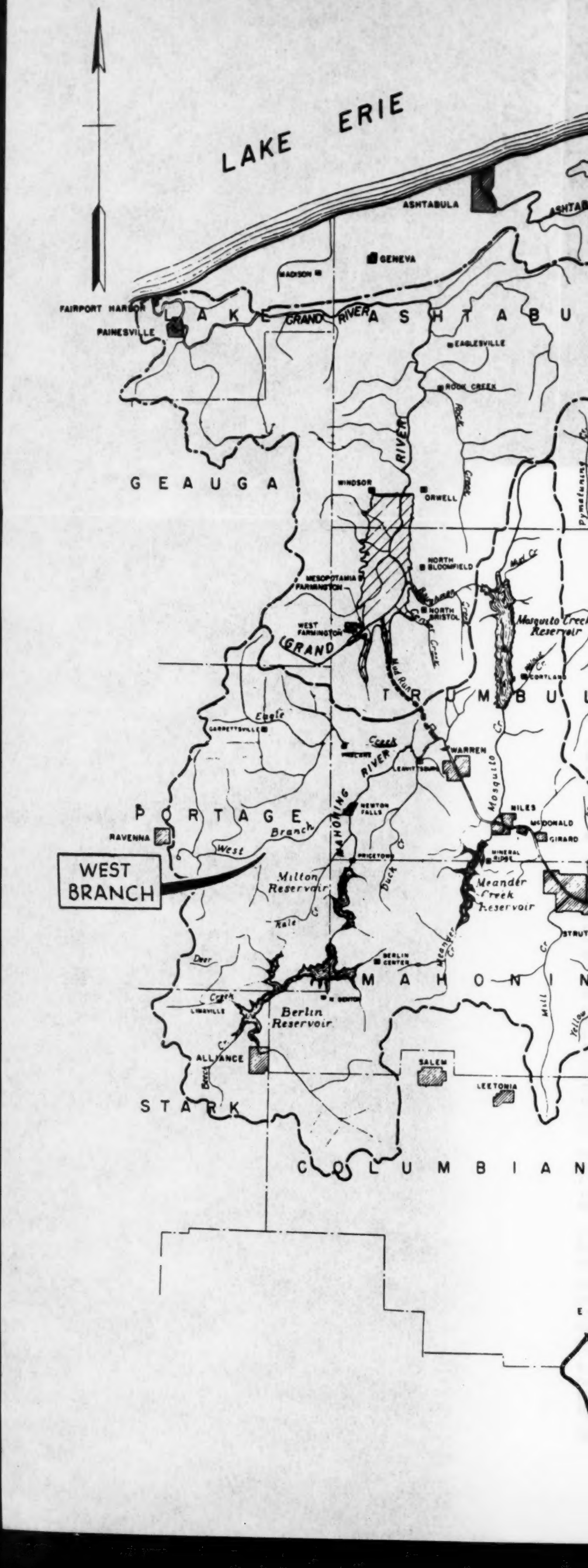
The West Branch Reservoir will also help substantially in aiding in development of domestic water supplies, which are sorely inadequate, by making it possible to use some present reservoir capacity for domestic uses.

These river developments and their benefits already have contributed enormously to the economic growth and welfare of the Mahoning Valley, and will continue to contribute.

A study of official records shows that in 1937 the Youngstown district had 7,549,691 tons or 10.82 percent of the Nation's steel ingot capacity of 69,775,334 tons, a present increase of 3,828,689 tons; and January 1, 1944, just after completion of the Berlin and Mosquito Creek Reservoirs, it had 9,989,800 net tons or 10.41 percent of the Nation's total.

Aside from the steel industry, there are other major expansions in the Mahoning Valley. The aluminum fabricating and processing industry, which has




LAKE ERIE
ASHTABULA
GENEVA
MADISON
FAIRPORT HARBOR
PAINESVILLE
LAKE
GRAND RIVER
ASHTABU
EAGLESVILLE
ROCK CREEK
Rock Creek
RIVER
GEAUGA
WINDSOR
ORWELL
Pymatuning
NORTH BLOOMFIELD
MESOPOTAMIA
FARMINGTON
NORTH BRISTOL
Grand
WEST FARMINGTON
GRAND
Mosquito Creek Reservoir
CORTLAND
Eagle
GARRETTSVILLE
Creek
RIVER
WARREN
Mosquito Cr.
PORTAGE
RAVENNA
Branch
West
MAHONING
NEWTON FALLS
MILES
McDONALD
GIRARD
WEST BRANCH
Milton Reservoir
Duck
Meander Creek Reservoir
Kale
Deer
BERLIN CENTER
MAHONIN
Creek
LIMAVILLE
Berlin Reservoir
ALLIANCE
Beech
SALEM
LEETONIA
STARK
COLUMBIAN

CONNEAUT
Conneaut Creek
ASHTABULA RIVER
CRAWFORD
Pymatuning Reservoir
Pymatuning Cr.
Pymatuning Creek
SHENANGO
Shenango Creek
LITTLE SHENANGO RIVER
GREENVILLE
Big Run
French Creek
Little Yellow Creek
Yellow Creek
CLARKSVILLE
SHARPSVILLE
SHARON
FARRELL
DONALD
GIRARD
WEST MIDDLESEX
RIVER
Neshannock Cr.
Little Neshannock Cr.
MERCER
Otter Cr.
Coal Spring Cr.
Yellow Cr.
Wolf Creek
GROVE CITY
Hogback Run
Hogback Branch
Slippery Rock Creek
South Slippery Rock
YOUNGSTOWN
CAMPBELL
STRUTHERS
MAHONING
LOWELLVILLE
MILLVILLE
EDINBURG
BESSEMER
COVERT
NEW CASTLE
Big Run
Hickory Run
MAHONINGTOWN
Muddy Creek
MORAVIA
PITTSBURG
BEAVER
Slippery Rock Creek
NEWTON
HASELDELL
WATERWORKS
ELLWOOD CITY
BUTLER
Little Connoquenessing Creek
KOPPEL
HOZEN
Connoquenessing Creek
Thorn Creek
RIVER
Brush Creek
ZELIENOPLE
EVANSBURG
Breakneck Cr.
Glade Run
EASTVALE
BEAVER FALLS
NEW BRIGHTON
FALLSTON
WEST BRIGHTON
BEAVER
ROCHESTER
MONACA
MONTGOMERY L&D
E LIVERPOOL
L&D NO 8
L&D NO 7
OHIO
BEAVER RIVER
AMBRIDGE
DASHIELDS L&D
EDSWORTH L&D
L&D NO 9
PENNSYLVANIA
OHIO
LAWRENCE
BUTLER
MERCER

WEST
BRANCH

grown here principally since World War II, now is estimated to employ about 7,500, which includes about 75 separate firms. This industry is a large consumer of domestic water. Other firms which have come into the area since the war include the Chrysler Corp. with a stamping plant, Sherwin-Williams Co., Harvell Manufacturing Co., Swedlow Plastics Co., International Paper, Globe Union, American Brake Co., Ohio Boxboard, Kaiser Chemical & Aluminum, and many others.

The steel industry will shortly become even more dependent on the river because of increases in steel capacity. Republic Steel is working on a 350,000-ton expansion at its Warren plant and a 75,000-ton expansion at its Youngstown Works. Youngstown Sheet & Tube is planning a 400,000-ton expansion at Youngstown. United States Steel no doubt will get a large steel expansion from its sintering plant, now under construction, and likely will build a by-products coke plant which will require enormous quantities of additional water.

Other industrial expansion here is also dependent upon increasing domestic water supplies in Youngstown, Niles, Warren, and other communities.

General Motors Corp.'s new Lordstown plant will require 2 to 2½ million gallons daily from Niles, and some others under consideration now will require another 2 to 3 million gallons daily.

The Mahoning Valley's present reservoir facilities consist of:

Meander Reservoir on Meander Creek, which has an impounding capacity of 10 billion gallons and a rated safe daily yield of the driest cycle of years of 30 million gallons a day. This frequently has been exceeded and the district, under a contract with the Army engineers, has been authorized to take up to 34 million gallons daily from Berlin Reservoir, for which it will pay $34 per million for what it takes.

Mosquito Creek Reservoir, a 36-billion-gallon reservoir, but which has a very small drainage area (about 97 square miles). Warren has been authorized to pump up to 16 million gallons daily for a domestic supply but now is trying to increase this to 26 million gallons daily. Berlin, 27 billion gallons storage capacity. Milton, 9 million gallons storage capacity.

I am therefore asking your consideration for authorization of the West Branch project, as a substitute for the already authorized Eagle Creek project, to help to protect this major industrial district against future devastating floods and to help to insure its future industrial growth, thus safeguarding its future contribution to the national economy and national defense.

[From the Akron (Ohio) Beacon Journal, July 4, 1956]

PORTAGE AND THE WEST BRANCH

Congressman Kirwan's successful sponsorship of the West Branch Reservoir project met some unexpected opposition in a protest which the Portage County Farm Bureau sent to the House Public Works Committee.

Actually the Portage people have reason to be glad that their protest did not succeed. They needn't take the Mahoning Valley's word for it: A convincing defense of the West Branch comes from an obviously impartial source, the Akron Beacon Journal.

The Beacon Journal observes that the reservoir is not "a suddenly cooked-up scheme to tap Uncle Sam for a boondoggling project" and is not based solely on flood control. Rather, it has been planned for 25 years, is part of the local conservation system which includes the Berlin and Mosquito Creek Reservoirs, and is "part of a national program and more specifically a water-conservation program." The editorial continues:

"The Mahoning River is one of the valuable industrial assets of northeastern Ohio. Its water is used over and over again by steel and other industries along its banks as it flows through Warren, Niles, Girard, and Youngstown. Tests made last October showed that at one industrial intake near Youngstown the water at times was above 100°. At that temperature it has little value for cooling purposes for steel mills or electrical generating units such as Ohio Edison Co. has at Niles.

"The West Branch Reservoir would create a new supply of fresh water by impounding the runoff from heavy rainfall, and make this supply available for the coming expansion of industry in the Mahoning River watershed. That more water is needed cannot be denied.

"The farm bureau also created the impression that considerable producing acreage would be covered with water if the dam is built. Portage County authorities say that about three-fourths of the estimated 4,000 acres needed for the

reservoir now is brush-covered swamp. These authorities point out that this acreage is on the tax duplicate at a low figure, while development of the reservoir would create a recreation area and boost property values around the reservoir. This happened to other areas developed for reservoirs or other purposes in Portage County."

In the light of these facts from an objective source, and also the consideration that the reservoir would offer a future water supply, in case of need, for the Portage County cities of Kent and Ravenna, Portage people may well join in the Beacon Journal's conclusion:

"The West Branch Reservoir proposal is part of a broad plan that would aid materially in industrial development without distress to Portage County."

[From the Youngstown (Ohio) Vindicator, July 2, 1956]

VALLEY'S FIGHT FOR ENOUGH WATER GOES BACK 40 YEARS, STILL IS ON

(By George R. Reiss, Vindicator Industrial Editor)

The Mahoning Valley's desperate back-to-wall fight to solve its water problems, both domestic and industrial, has been under way for more than 40 years against heavy odds and it appears to be a never-ending fight.

In those years, leaders in the fight to solve water supply problems have accomplished wonders. But still more miracles will be needed to provide the area with a good, adequate water supply sufficient for present needs and a growing industrial area.

The proposed $14 million West Branch Reservoir, now before Congress, is just another step along the way. Apparently it is not a complete solution.

Col. H. E. Sprague, United States Army district engineer at Pittsburgh, is in charge of making the West Branch survey. He estimates the Mahoning Valley needs enough more reservoir storage capacity to supply an average minimum flow of 142 million gallons a day in the Mahoning River to meet the United States Public Health Service's minimum standards of 320 million gallons a day at Youngstown. West Branch will supply only 32 million gallons. Besides, the area will need more domestic water to serve its raply growing population.

FILTHY STREAM

The Mahoning Valley's fight to conserve its water supply through the reservoir system dates back to 1914. Youngstown then was the Nation's second largest steel producing center, although it had only about half today's capacity.

The Mahoning River in those days, in hot weather months, was a trifling stream, thick, of coffee-brown muck, a malodorous mixture of water, waste pickle liquor scale, sewage, and other materials. It was used both as a domestic and industrial water supply and, as now, a convenient place to dump sewage.

Youngstowners induced the city to build Milton Reservoir, a 10-billion-gallon reservoir, to help rectify the situation. When it was completed in 1916, it helped the situation—but it helped Warren and Niles even more. They also got water from the river and dumped their sewage into it. They got Milton's water first.

Meanwhile, Republic Iron & Steel Co., Brier Hill Steel, Youngstown Sheet & Tube, Carnegie Steel Co., and others had enlarged their plants and increased their water needs.

MEANDER BUILT

The next step came in the 1920's when valley leaders realized they would have to get domestic water supplies from new—and cleaner—sources. Niles and Youngstown banded together and Warren stayed aloof. They got the Ohio Legislature to pass the Sanitary District Act, enabling communities to work together on water problems. They organized the Mahoning Valley Sanitary District, which built Meander Reservoir, an 11-billion-gallon project on tiny Meander Creek just west of Mineral Ridge.

When it was completed in 1932, Niles and Youngstown got one of the best domestic water supplies in Ohio. Meander was rated to furnish 32 million gallons of water during the driest cycle of years. Yet leaders realized even then that if the area was to grow, even more water would be needed. The sanitary district acquired land in the upper Mahoning River Basin for a supplemental domestic reservoir.

The industrial water problems always were present, and leaders, pushing for a Lake Erie-Ohio River Canal, hoped it would provide supplemental blessings in improved water supplies. Then Pittsburgh helped Youngstown's water supply.

PITTSBURGH HELPED

After the floods of 1936 and 1937 caused many millions of dollars in property damage, particularly in Pittsburgh, pressure was brought on Congress. The lawmakers passed the comprehensive Flood Control Act of 1937 authorizing dozens of flood control reservoirs. Included were authorizations for flood control reservoirs on the upper Mahoning River, Mosquito Creek, and Eagle Creek.

Just before World War II, a clamor went up for more steel. Youngstown mills needed more water badly and protection against floods.

Congressman Michael J. Kirwan persuaded United States military leaders to provide the money and materials to build Berlin Reservoir, a 27-billion-gallon reservoir.

THEN MOSQUITO CREEK

The result was such a spectacular success that Congressman Kirwan went to bat for Mosquito Creek Reservoir, a 36-billion-gallon project. Again military leaders came through. The two were the only flood-control projects built in the whole United States during the war.

When Berlin Dam was being built, the Mahoning Valley Sanitary District relinquished its rights to the land it had tied up for supplemental domestic water supply. In return, it was given rights to install fixtures in the dam so it could obtain a future supplemental water supply from Berlin.

After the war, domestic water needs grew by leaps and bounds. Soon the sanitary district found itself dangerously near its 32 million gallons per day limit.

The district then negotiated a contract with the United States Army engineers to withdraw from Berlin up to 34 million gallons daily to supplement the Meander supply.

Warren, meanwhile, encountered domestic water troubles, and sought a new supply. It negotiated with the Army engineers to take up to 16 million gallons daily—at $4.50 a million gallons—from Mosquito Creek Reservoir. Until recently foes of the sanitary district blocked its efforts to tap Berlin. However, the way was cleared recently and a new pipeline is being built to connect the two reservoirs.

Meanwhile, during and after the war, a new system was worked out to permit "juggling" the available water supply to provide maximum use. Part of the storage capacity in Berlin, Milton, and Mosquito Reservoirs is reserved for flood control, part for low-flow control—and the part reserved for low flow is increased as flood dangers diminish.

Army engineers keep a regular check on the Mahoning River's flow and temperatures at Youngstown and Leavittsburg, also the water in storage. As river temperatures rise and flow falls off, the quantities of water released from the reservoirs are increased, thus controlling the temperatures. In heavy rains which flush out the rivers and provide cooler temperatures, the flow from the reservoirs sometimes is cut off entirely for a time, thus conserving water supplies.

And that's how Youngstown industry has come through the years.

[From the Youngstown (Ohio) Vindicator, July 1, 1956]

AREA'S GROWTH EXPANDS VAST THIRST FOR WATER

By George R. Reiss, Vindicator Industrial Editor

The Mahoning Valley, part of the Nation's fourth largest steel-producing area and one with the skimpiest industrial water supply, has an enormous thirst. And the big thirst is growing rapidly.

Current steel expansion, coupled with other growth here, is boosting the valley's water needs, and the valley is running out of possible sources of water supply inside its own limits. That means it eventually must seek new water supplies outside it own area, as has been done in other parts of the country.

Valley industries now need 1⅓ billion gallons of water daily to satisfy their thirst. Often in hot weather, the Mahoning River's flow falls to a trickle of 178 million gallons a day. Thus, the industries must use every gallon over and over, up to 8 or 9 times.

KIRWAN TAKES ACTION

Congressman Michael J. Kirwan recently asked Congress to authorize a $14 million reservoir for both low flow and flood control in the Mahoning's West Branch, near Wayland, thus helping relieve problems of too much water at times and too little at others. The House Public Works Committee has just approved the idea. It still needs approval by the full House and the Senate.

Col. H. E. Sprague, United States Army district engineer at Pittsburgh, recently pointed out the Federal Public Health Service has set a flow of 320 million gallons a day at Youngstown as an important requirement. He pointed out that the present reservoir system, including Berlin, Milton, and Mosquito Creek, can assure only 55 percent of this, or a minimum flow of 178 million gallons, and the proposed West Branch Reservoir would raise this minimum flow to 210 million.

DOUBTS EAGLE CREEK SOLUTION

He said the only other available water supply source in the Mahoning watershed would be Eagle Creek. However, because of the extensive and expensive silica workings in the Eagle Creek Reservoir area, he questioned that an Eagle Creek Reservoir could be economically justified. Even with an Eagle Creek Reservoir, the river would be short 78 million gallons daily of meeting the Federal Health Service minimum flow, he said.

Congressman Kirwan, in urging the new West Branch Reservoir, recently assured the House Flood Control Subcommittee that the Mahoning Valley is doing its utmost to meet its own water-supply problems.

He pointed out that the valley "makes probably the most intensive use of every available gallon of water of any place in the United States." He added that the area "contains probably the largest investment of private funds most vulnerable to flash floods."

Kirwan pointed out that the district as of last January 1 had 11,378,380 net tons of steel ingot capacity, or 8.9 percent of the Nation's 128,363,000 tons of capacity; 25 blast furnaces rated at 7,992,750 tons of the Nation's 261 furnaces with a capacity of 85,485,230 tons; and 4 coke plants rated at 4,018,000 tons of the 71,508,400 tons of coking capacity.

MILLS HAVE VAST APPETITE

Steel mills need enormous quantities of water, he said. He explained that the American Iron and Steel Institute reported that the industry in 1953 required 3.1 billion gallons in its various processes; about 55 percent was recirculated to surface water sources.

And Youngstown mills, Congressman Kirwan said, need unusually large water supplies. While nationally the mills needed about 57 tons of water (13,757 gallons) per ton of pig iron, Youngstown Sheet & Tube Co. required 54,000 gallons per ton in its 7 Mahoning Valley blast furnaces; and the 4 Campbell Works stacks required 61,000 gallons—or 4 times the national average.

Kirwan explained this higher water use is due to high temperatures of water at Campbell, requiring large quantities to achieve the same cooling result. He pointed out that Army engineers had set 95° as the maximum desirable temperatures of river water at the Campbell intake. Unable to meet that maximum with water supplies available, they finally gave up, increasing the maximum to 105°.

COSTLY TEMPERATURES

"That increase in temperatures," he said, "has cost the industries hundreds of thousands of dollars annually in increased fuel costs, maintenance, and otherwise lowered efficiency."

Kirwan contended that the West Branch Reservoir will help to lower the maximum water temperature to 95° again.

"The West Branch Reservoir," he said, "will help substantially in aiding in developing domestic water supplies, which are sorely inadequate, by making it possible to use some present reservoir capacity for domestic uses."

He pointed out that river developments already have contributed enormously to the valley's economic growth and will continue to contribute. Aside from steel, the valley has had other major expansion in recent years and other is coming.

GREATER NEED LOOMS

The steel industry will soon need even more water, Kirwan said, pointing out that Republic Steel Corp. is working on a 350,000-ton expansion at its Warren plant and a 400,000-ton expansion at Youngstown. He said United States Steel also will need more water because of its expansion.

"Other industrial expansion here is also dependent upon increasing domestic water supplies in Youngstown, Niles, Warren, and other communities," Kirwan said. He pointed out that General Motors Corp.'s new Lordstown plant will need about 2 to 2½ million gallons daily and some other under consideration will require another 2 to 3 million gallons daily.

Mr. KIRWAN. Thank you, Mr. Chairman.

Senator KERR. Thank you very much, Congressman Kirwan. You are always welcome wherever Democrats are and I find this morning, apparently you are welcome where Republicans are. [Laughter.]

Senator NEUBERGER. May I ask one question?

Senator KERR. Question by Senator Neuberger.

Senator NEUBERGER. What is the total cost of the project?

Mr. KIRWAN. Fourteen million. The city is to pay half. The city is not asking for anything for nothing. The flood control may come to about 7 million. Now, if I can just say this one thing and then I will bow out of here. The record of the Army engineers shows that 81 percent of the flood control in Youngstown was used up this year in 2 days' rain. Just think of what would happen to us in flood. It came some years ago within 4 inches of getting into the plants and had it got in there, it would cost millions and millions of dollars.

Senator NEUBERGER. I certainly agree with what you said about the return on a public investment being a hundredfold. You are absolutely right. Thank you so much.

Mr. KIRWAN. Thank you, Senator Neuberger.

Senator HRUSKA. I just wonder, Congressman Kirwan, I notice this project in the bill, in the next one, is for authorization substantially in accordance with the plans to be prepared by the Chief of Engineers. Now, ordinarily, we have the plans first.

Mr. KIRWAN. That is the Chief of Army Engineers and it has been his statement in front of the Public Works Committee of the House, that it is far enough advanced on the plans, down through the 20 years, and that they know every inch of it in there. He has already made that statement and he is here now to make it again, that they are already advanced far enough on the plans to know that it is a worthwhile project.

It was already authorized in 1938 and all we are doing is changing the name of the title over to the next creek, where it is the only place left in that valley to get water. There is not another stream we can go to, not another creek. That is the only place left in that valley where we can get water.

Senator KERR. We will hear from the Army engineers.

Now then, there is some opposition on this project and that is headed by Mr. Heard of Pittsburgh, and this afternoon, we will assign 30 minutes to Mr. Heard and the people that are with him to make their presentation this afternoon.

Mr. HEARD. What time?

Senator KERR. That will just depend entirely on what we are able to do.

We will now hear from the engineers on the West Branch of the Mahoning River.

General ITSCHNER. A review of survey scope on the West Branch was authorized by resolution of the House Appropriations Committee on the 10th of March 1955. A report is being prepared by the district engineer and is due for completion in December 1956. However, there is an unusually large amount of data available from the recently prepared Mahoning-Grand report which has not yet been submitted to Congress, but which has been heard and passed upon by the Board of Engineers of Rivers and Harbors and by the Chief of Engineers.

The Mahoning River rises in the vicinity of Alliance, Ohio, flows northeast to the town of Warren and then reverses itself and flows southeast to its confluence with the Shenago River, forming the Beaver River, which in turn joins the Ohio River about 25 miles downstream from Pittsburgh.

The West Branch of the Mahoning River originates near the town of Ravenna, Ohio, and flows east and slightly north to its junction with the main Mahoning River, upstream from Warren.

The area of Warren, Niles, Youngstown, and New Castle, is very highly industrialized. In that general area is produced about 10½ percent of the pig iron of the country, and 9.9 percent of the steel production of the country.

Youngstown had a population in excess of 168,000 in the 1950 census. There are existing in the area 4 large reservoirs, of which 2 are Federal and 2 were constructed by local interests. The two local reservoirs are Milton Reservoir and Meander Reservoir. Those reservoirs are for flood control, low flow augmentation, and water supply. Two Federal reservoirs were built during World War II, and they are Berlin Reservoir and Mosquito Creek Reservoir. They were built largely to provide additional low flow water for the steel mills in the various towns, particularly Youngstown and also for other industry in the area. They do serve, however, a very important flood-control purpose.

There is a flood-control problem on the Mahoning River which has been partially solved. However, in the years since the beginning of 1952 there have been 9 minor floods at Warren, and 3 minor floods at Youngstown. However, if the 1913 flood were to reoccur today under present conditions of development, even with existing reservoirs, we estimate the flood damage would be about $29 million, of which the reservoir which we are going to propose, the West Branch Reservoir, would prevent approximately one-half or in the neighborhood of $14,500,000 or $15 million flood damage.

The average annual flood damage under existing conditions with the 4 reservoirs that I have mentioned already in place is about $572,000, of which the West Branch Reservoir would prevent about $300,000 on the Mahoning River. In addition to that, it would prevent about $86,000 on the Beaver River and on down along the Ohio River.

One of the greatest needs in this area, in addition to flood control, is the need for increasing the flows of water for the use of industry. It is partly a problem of pollution, but it is more a problem of high temperatures of the water.

At the present time the flows are being augmented with the existing reservoirs so that the flow at the present time is 275 cubic feet per second average throughout the year. However, in the summer, 470 cubic feet per second are released because they need it more in the summer, and in the winter it drops down to 185 cubic feet per second.

With the West Branch Reservoir those flows would be augmented so that instead of the 275 cubic feet per second average annually, the release would be 325 cubic feet per second, and in the critical summer period, instead of 470 cubic feet per second, 520 cubic feet per second would be released.

Senator HRUSKA. What is the necessity for that increase? Is it principally temperature?

General ITSCHNER. It is principally temperature. It is also pollution. But its main purpose would be for cooling waters for the industries downstream.

Senator HRUSKA. There was considerable testimony yesterday about the pollution which occurred there. A statement was made, among other things, that the addition of this water wouldn't improve that situation any except speed the disposal of that polluted water which is generated in that area. Have you any comment on that?

General ITSCHNER. Obviously any increase in the flow will lessen the effects of the pollution. It will make the condition of the stream better. I am sure that even with this release the pollution would still be bad. But the primary purpose is not pollution abatement, it is providing lower temperature water for industry. As a matter of fact, I might tell you what the annual benefits would be from this proposed dam, which would illustrate that point. The average annual benefits we estimate would be $386,000 for the reduction of floods, $10,000 for increased land use, $78,000 for pollution abatement, and $174,000 for industrial water supply. So the benefit for industrial water supply is something over two times the annual benefit claimed for pollution abatement.

Senator HRUSKA. What are the local participation requirements?

General ITSCHNER. As I indicated to you, sir, the report is just being prepared by the district engineer, although we know an unusual amount about it because of other studies. But we would estimate that somewhere between 40 and 60 percent of the entire cost of the project would be reimbursable by the downstream beneficiaries in the area of Youngstown and the other cities along the valley.

The total cost of the project is estimated very roughly at this time as $14 million. Therefore, the local contribution would be in the neighborhood of $7 million.

Senator HRUSKA. Testimony was given here the other day that local agreements had been completed and signed and were undertaken by local authorities. Is that included in your local report?

General ITSCHNER. We have at this time no signed agreements with the authorities downstream who would provide that local cooperation. But we have assurances from the Mahoning County commissioners that the contribution required in the report will be forthcoming.

Senator HRUSKA. In what form are those assurances?

General ITSCHNER. Just a letter, I believe, from the commissioners.

Senator HRUSKA. Could we have that for the record?

General ITSCHNER. We will furnish you a copy of that letter. (The information requested is as follows:)

The attached resolution adopted by the county commissioners, Mahoning County, Ohio, in February 1954 applied to a more extensive proposed improvement than the West Branch Dam and Reservoir. While it cannot be construed as representing the formal and specific views of the county with respect to the West Branch project, it is indicative of the local interest in the solution of the water resource problem. Interest is continuing to be maintained.

RESOLUTION IN SUPPORT OF THE MAHONING-GRAND RIVER FLOODWAY

We, the duly elected members of the Board of County Commissioners, Mahoning County, Ohio, in regular meeting assembled, do hereby adopt the following resolution:

Whereas on November 21, 1949, this board of county commissioners, adopted a resolution approving and supporting a plan of improvement for flood control and stream flow regulation in the Mahoning and Grand Rivers, Ohio, known as the proposed Mahoning-Grand River floodway which plan was then proposed by the district engineer, Pittsburgh, Pa., district, Corps of Engineers, United States Army as the result of a survey made under a congressional directive; and

Whereas the district engineer has been engaged on a reexamination of the proposed floodway plan in light of current requirements and conditions and as a result of this reexamination has concluded that the plan of development previously proposed remains, except for minor modifications, the plan best adapted to solution of the flood and flow regulation problems of the lower Mahoning River Basin; and

Whereas the district engineer as a result of the reexamination has concluded that the nature of the benefits which would result from the project are such as to warrant substantial participation by local interests in the cost of constructing, operating, and maintaining the project: Now, therefore, be it

Resolved, That this board of county commissioners hereby confirms its resolution of November 21, 1949, evidencing its approval of the floodway project and acceptance of such local cooperation stipulations as may be required.

It was moved by Mr. Gilronan seconded by Mr. Carney that the foregoing resolution be approved and passed.

Remarks: None.

Rollcall voting resulted as follows: Fred A. Wagner, aye; Edw. J. Gilronan, aye; Thomas J. Carney, aye.

(Signed) FRED A. WAGNER,
(Signed) EDW. J. GILRONAN,
(Signed) THOMAS J. CARNEY,
Mahoning County Commissioners.

Whereupon, the president declared the foregoing resolution duly adopted this 17th day of February 1954.

(Signed) FRED A. WAGNER,
President of the Board.

Attest: (Signed) JOHN C. COX,
Clerk of the Board.

I, John C. Cox, clerk of the Board of County Commissioners, Mahoning County, State of Ohio, hereby certify that the foregoing is a true and correct copy of the original resolution now on file in my office.

[SEAL] (Signed) JOHN C. COX,
Clerk of the Board of County Commissioners,
Mahoning County, State of Ohio.

General ITSCHNER. It was alleged that the purpose of this project, perhaps indirectly, was to further the construction in the future of a canal from Lake Erie to the Ohio River. Obviously the project itself could never form a part of such a canal because it runs at right angles to the location of such a canal, regardless of where it is put. It of course would augment the flow in the Mahoning River and conceivably could facilitate the construction of such a canal. But certainly that is not the intention of the project. It is extremely remote from any consideration we have at this time.

We cannot conceive of how this project could be construed as being a project to further a canal which we have not favorably recommended.

Senator HRUSKA. When you speak of intention do you speak for all parties concerned or for the Corps of Engineers?

General ITSCHNER. I am speaking for the Corps of Engineers. But I sincerely believe that the people who want this project in Youngstown and the Mahoning Valley do not want it for that purpose.

Senator HRUSKA. Would the volume of water from Youngstown down, with the addition of the water from this new reservoir, West Branch, be sufficient to sustain a canal operation up to as far as Youngstown?

General ITSCHNER. It would certainly assist in sustaining such a canal but I believe there would be required a considerable amount of dredging, straightening, and other works. How many locks would be required I don't know. However, there would be locks required in this reach.

Senator HRUSKA. I am speaking of the volume of water and not the improvements.

General ITSCHNER. The volume of water would help a canal project by providing slightly greater depth and providing water to operate locks. But it would not be sufficient to provide a channel without a great deal of additional work which would have to be authorized by Congress.

Senator HRUSKA. I understand. But the allegation was made yesterday in other testimony that there was intention along that line, and that is the reason I am exploring this with you, General Itschner.

General ITSCHNER. I really believe that is very far-fetched. Certainly it never entered our minds and I am sure it doesn't enter the minds of the people who really need this water for industry. That is why they want water, and not for a canal. Not that there isn't sentiment for a canal, because there is, but I don't believe this project enters into the canal picture.

Senator HRUSKA. The language of the bill indicates that this project "is hereby authorized substantially in accordance with plans to be prepared by the Chief of Enginers." It is observed that the next item with reference to the Sandy Lick Creek at Brookville, Pa., has similar language. As far as you know, are those the only two instances where that language of "plans to be prepared" is ued in this bill, General Itschner?

Mr. BRENNAN. That precise language, Mr. Chairman, I believe is used only in those two items. There are other instances in the report where the proposal is to authorize the improvement in accordance with plans of the division engineer, for example, or others. That is, plans which have not yet been prepared or which have not yet been approved by the Chief of Engineers.

Senator HRUSKA. In this instance as you testified, the report has not been completed by the district?

General ITSCHNER. That is right. It has not been completed and will not be completed by the district engineer until the end of this calendar year.

Senator HRUSKA. Does that complete your statement on the West Branch of the Mahoning River item?

General ITSCHNER. Yes, sir; that completes my statement.

Senator HRUSKA. Did you get into the matter of benefit-cost ratios?

General ITSCHNER. I did not. I inadvertently omitted that. The benefit-cost ratio, sir, we estimate at this time will be 1.14 to 1. That might be changed as we develop the project further. But we feel that it is fairly conservative.

I believe it was said, sir, yesterday, that the location of the dam had not been determined. Actually, we have determined the location of the dam. We know in general terms how it will be constructed, what it will be like. We know its capacity. We know quite a bit about it. We do not have the details of it designed as yet.

Senator HRUSKA. What bearing has that on the estimates?

General ITSCHNER. That would have a great effect on the estimates. We believe we have proceeded far enough in the preliminary considerations of the design of the project to determine with a reasonable degree of assurance that the estimated cost is $14 million.

Senator HRUSKA. That will conclude, at least for the time being, the showing on the West Branch, Mahoning River.

Senator KERR. Senator Monroney is here and with him are some citizens from southern Oklahoma. Senator, do you have a statement?

Senator MONRONEY. I would like to yield to people who are here first and then I will be able to speak after.

Senator KERR. This is in connection with proposed legislation to amend the program on Millwood Reservoir in Arkansas and to provide an alternate reservoir system in Oklahoma and Arkansas on the tributaries of the Red River.

First, I would like at this point to place in the record excerpts from the Arkansas-White-Red River Basin multiple-purpose plan as developed by the Interagency Committee under legislation passed in 1950, and the report of which Interagency Committee was made in 1955, this being pages 25 to 40, inclusive. Also, a comparison of three multiple-purpose plans to develop the water resources of Little River by Walter C. Burnham, October 1955.

(The reports referred to above are as follows:)

A COMPARISON OF THREE MULTIPLE-PURPOSE PLANS TO DEVELOP THE WATER RESOURCES OF LITTLE RIVER

(By Walter C. Burnham)

1. The Corps of Engineers' plan as given in the Arkansas-White-Red River Basin report.
2. The Corps of Engineers' plan of improvement for the development of water resources, September 1955.
3. All-purpose plan consisting of eight tributary reservoirs and the modification of the authorized Millwood project.

COMPARISON OF THREE PLANS FOR THE DEVELOPMENT OF WATER RESOURCES OF LITTLE RIVER WITH AN ALL-PURPOSE PLAN

The Little River drains a portion of the Kiamichi Mountain area in southeastern Oklahoma and a small area of the Ouachita Mountain area in southwestern Arkansas. The total drainage area is 4,260 square miles and enters Red River at mile 465 near Fulton, Ark. Approximately 4,140 square miles is above the location of the Millwood Reservoir. The principal tributaries are Glover Creek, Mountain Fork, Rolling Fork, Cossatot, and Saline Rivers. The average annual rainfall is nearly 50 inches.

The Corps of Engineers have made several reports on Red River in Louisiana, Arkansas, Oklahoma, and Texas. In the preparation of these reports available dam sites were considered on each of the principal tributaries. Pertinent data were compiled and published. From these data an all-purpose plan to develop

the water resources of Little River has been prepared. Such a plan will provide flood control, develop a large part of the potential hydroelectric power and provide ample storage for other benefits, such as municipal and industrial supplies, pollution abatement and irrigation, as the needs for these uses develop.

The area at the present time is underdeveloped as far as the ability to make beneficial use of the water is concerned. Timber is a principal industry. The tillable lands are in the flood plains of the numerous streams and in the extensive area between Little River and Red River. The flood plains are subject to frequent overflows which prevents extensive farming operations and the building up of the soil to yield the crops that would be possible if protected by reservoirs and levees.

The Corps of Engineers, in compiling the data for the Arkansas, White, and Red report, prepared a report on possible solutions for developing the water resources of Little River. This report gave the estimated average annual benefits by tentative plan of improvements for six-reservoir system as follows:

6-reservoir system:	*Benefit*
Flood control	$309,250
Power	3,771,000
Conservation	216,300
Recreation	414,000
Negative benefits	−72,000
Total	4,638,550

(P. 25 of "Possible solutions.")

The estimated annual charges of $5,321,400 indicate a benefit-cost ratio of 0.87 for the tentative plan of development. The report is summarized with this statement: "The upstream system of reservoirs desired by local interests would provide flood protection to Little River and tributary valleys, would provide adequate water supplies for municipal and future industrial uses, would utilize water resources for power, and would improve conditions for development of the economy of the area. Even though the system of reservoirs lack economic justification in monetary terms, it is considered that the plan is a feasible solution to meet the needs of the area and should be included in the comprehensive development plans of Red River Basin. It is probable that the economic attractiveness will increase when correlation with power operation of other systems is made, final power values are determined, and the Department of Agriculture teams complete their survey."

This tentative plan did not propose any changes in the capacity of the Millwood Reservoir, nor assign any of the flood-control benefits accruing below Millwood to pay for the flood storage in the six-reservoir system considered.

The future value of this water for municipal and industrial purposes was not considered in estimating the benefit-cost ratio of 0.87. The power benefits of $3,771,000 is in excess of the revenue that can be derived from the sale of the power. It may be explained that the benefits are intended as an estimate of the total value of the hydroelectric power to the public and to the Nation, and that these benefits would exceed the revenues collected for the sale of power at wholesale rates. The power revenues must be sufficient to pay for the actual cost of providing the power facilities.

The Arkansas, White, and Red report estimates the value of the power at site at $2,658,000 (p. 36, pt. II, sec. 2, vol. F, Arkansas-White-Red report), which is close to the revenue value. The question is which value should be used by the Corps of Engineers to justify the inclusion of power in the project. Is it the benefit value to the public, or is it the revenue collected for the sale of the power at wholesale rates?

The letter prepared by the Corps of Engineers, dated September 13, 1955, estimates the value of 241,300 acre-feet of storage for domestic and industrial water supplies will yield in excess of 500 million gallons of water per day and has a benefit of $2,211,000 annually. This letter also reduces the storage capacity of Millwood Reservoir from 2,260,000 acre-feet to 1,718,000, with a decrease in cost of $10,860,000. The flood storage for Millwood, as authorized, is 2,208,000 acre-feet. Flood storage with Millwood modified, plus the flood storage in the 6-reservoir system as contemplated in the September report, totals 2,990,600 acre-feet.

In the flood-control benefits of $309,250 in the earliest report, this value appears

to be made without anticipating future development and changes in the uses of land that can be reasonably expected. There are, according to this report on the tentative plan, 190,200 acres of classified land in the flood plain. The annual value of the crops in a flood-free year was estimated and tabulated in this report as follows:

Crop	Acres	Value	Value per acre
Timber	112,640	$345,370	$3.07
Pasture	63,150	30,610	.48
Cultivated	14,410	490,030	34.00
Total	190,200	866,010	4.55

The estimated crop yields were: corn, 23 bushels to the acre; cotton, 550 pounds in the seed; oats, 30 bushels per acre; and sorghum, 14 bushels per acre. These values appear reasonable for the present conditions of the flood plains, but are far below the yields from bottom lands protected from floods. For example, if one-third of the classified land was placed in cultivation and the value of the crop was only $50 an acre, the annual value of crops would be increased from $866,000 in a flood-free year to over $3 million. Certainly, the value of timber land at $3 per acre is extremely low. For such an improvement in land use the valley income would be increased by over $2 million, a large portion of which would be estimated as benefits.

Therefore, with the tentative plan and a benefit-cost ratio of .87, with power values reduced from benefits to revenues, and a benefit value estimated for water uses, with flood benefits based upon future development, and a portion of the benefits accruing for flood protection below Millwood, it appears the system of six upstream reservoirs and modified Millwood would be fully justified.

The tentative plan prepared as a possible solution for the development of the water resources of Little River does not provide sufficient storage to develop the water resources.

We propose for an all-purpose plan that the storage in Millwood be reduced from 2,200,000 acre-feet for flood control to approximately 1 million acre-feet; that 2 reservoirs be built on the main stem of Little River above Idabel; and the 8 upstream tributary reservoirs be constructed to provide flood storage, hydroelectric power, and sufficient dead storage together with power storage to make use of the regulated flow of the streams for the future needs of municipalities, industries, dilution purposes, and irrigation, as these needs develop. A comparison of the pertinent data of such an all-purpose plan with the tentative plan considered in the preparation of the Arkansas-White-Red report and the improvement plan of September 13, 1955 follows.

The three plans analyzed are, first, the Corps of Engineers prepared a possible solution plan to develop the water resources of Little River, consisting of 6 upstream reservoirs, which was later modified to 7 reservoirs by including Dierks project on Saline River. This plan does not include any modification of the authorized Millwood Reservoir. The Millwood Reservoir, as authorized, has a flood storage of 2,208,000 acre-feet. The flood storage in the upstream 7 reservoirs increases this to 3,569,000 acre-feet.

The data for the second plan, headed in these tabulations "report", was submitted to some organizations and officials subsequent to a conference held in the Tulsa district office in September 1955. The Millwood project in this plan is modified by decreasing the flood-control storage from 2,208,000 to 1,666,000 and provides flood storage in 6 upstream reservoirs, which, with modified Millwood, gives a total of 2,990,600 acre-feet.

The third plan is designated in these tables "All purpose." In this plan the Millwood Reservoir is modified and the flood storage is reduced to 1 million acre-feet, and with the flood storage in 8 upstream reservoirs, a total flood storage of 2,318,000 acre-feet is provided.

Millwood, as authorized, with a flood storage of 2,208,000 acre-feet,, provides a storage equal to 10 inches of runoff from the 4,144 square miles above

the reservoir. The flood storage in the tributary reservoirs of the all-purpose plan is equivalent to 11 inches of runoff from the area above each reservoir. A flood storage of 700,000 acre-feet in Millwood Reservoir will provide 12 inches runoff from the area below the tributary reservoirs and the Millwood dam site. The million acre-feet proposed allows for regulation of flows from the upstream reservoirs. The total flood storage of 2,318,000 acre-feet is intended to serve all of the purposes of the Millwood project, as authorized and distribute the benefits accruing from the area below Millwood to all of the projects in the system.

The table headed "Pertinent data" shows the location of each project on each stream, the river-mile, the drainage area above the dam, elevation of the tops of the dam, and the elevation of the top of the flood control for each dam for each of the three plans.

Two essential differences between the all-purpose plan and the plans prepared by the Corps are, first, more storage is provided above Idabel in the all-purpose plan by including an additional reservoir above Pine in the upper reaches of Little River. This adidtional storage is used for stream regulation, generation of power, and provides storage for future uses.

The second difference from the plan proposed by the Corps of Engineers is all corps' reservoirs have unregulated spillways. This type of design required a freeboard of 20 to 25 feet. The freeboard is reduced to 12 or 13 feet when spillways are controlled and operating personnel is always available at powerplants.

The tabulation entitled "Reservoir storage" gives the flood control, power storage, water supply, dead storage, and total storage for each of the reservoirs for each of the three plans. Flood control storage has been discussed. The power storage in the corps' report in the Arkansas-White-Red survey is 1,159,000 acre-feet. In the all-purpose plan it is 1,621,000 acre-feet. This difference is additional storage in the three reservoirs above Idabel and increased power storage in Narrows and Broken Bow Reservoirs on Mountain Fork.

The report of September 1955 provides 241,300 acre-feet for water supply. The Arkansas-White-Red report and the all-purpose plan provided for water supplies to be taken from the power storage and from the dead storage when and if the needs require.

The dead storage in the all-purpose plan is 1,869,000 acre-feet. This provides for large permanent pools for recreation purposes, boating, emergency uses, and for possible future needs. The Corps' plan in the Arkansas-White-Red report provides for a dead storage of 1,170,000 acre-feet. The principal difference between these two plans is the reserve storage provided in the all-purpose plan in the reservoirs above Idabel. The corps' report of September 1955 provides a dead storage of 81,100 acre-feet, of which 52,000 is in the Millwood Reservoir. This plan is entirely inadequate for providing power, recreation, or other uses.

The total storage in the all-purpose plan is 5,808,000 acre-feet and the plan prepared by the corps in the Arkansas-White-Red report is 5,898,000 acre-feet. The total storage in the September report of 3,313,000 acre-feet is far too small to develop the water resources of Little River.

The plan of improvement submitted in the corps' report of September 13, 1955, proposes the use of 500 million gallons of water per day as the only beneficial use. The total 500 million gallons of water per day for municipalities and industries cannot be used in the foreseeable future. The construction of the system should not be deferred until the need of this amount of water develops. It is proposed that the reservoirs be large enough to permit reallocation of storage for needs that are not supplied by releases for power generation. This amount of water, 500 million gallons per day, although far beyond the present needs of municipalities and industries, is only 770 cubic feet per second. The recorded average flow at the Horatio gage from a drainage area of 2,674 square miles is 4,126 cubic feet per second for the years 1931 through 1952. The drainage area above the Millwood Dam is 4,144 square miles. At this ratio the average flow of Little River is approximately 6,000 cubic feet per second.

The third table is "Pertinent hydroelectric data" for the 2 plans, 1 by the Corps of Engineers for the Arkansas-White-Red report, and the other the all-

purpose plan. The principal difference results from the additional storage in the three reservoirs above Idabel, that is, Caney and Pine on the main stem of Little River, and Lukfata on Glover Creek.

The pertinent question on power is whether the benefits to the public will be used for justification, or the revenues from the sale at wholesale rates. If the revenues are used, then certainly Federal income taxes would not be included in the economic costs. The output of these projects is peaking power and will be sold and integrated in the systems of preferred customers and the private utilities. The generating and transmission cooperatives, the REA cooperatives, and municipalities do not pay Federal income tax for power and energy purchased from the Government or for power and energy purchased from private utilities. The private utilities pay the Federal income tax on profits from the sale of power and energy received from the hydroelectric plants on the same basis as the power and energy generated by their steam plants.

CONCLUSION

In conclusion the real question is: Can such a system as described in the all-purpose plan be economically justified?

The differences between the all-purpose plan and the Arkansas-White-Red plan as to storage capacities and installation for power are not too great for careful comparison.

The construction cost of the 6 plants in the Arkansas-White-Red report is estimated at $121,895,000. Of this amount $964,000 is for remedial fish and wildlife measures. The total annual economic costs, based upon the above construction cost, is $6,918,000, of which $827,000 is for taxes foregone, of which a large part is Federal income tax, and no allowance is made for increased values of the shoreline property, docks, and boats on the reservoirs.

The annual monetary benefits are $6,336,000, of which $442,000 is flood control; $2,658,000 is power benefits; and $3,266,000 is water-supply benefits. The benefits of flood control to the 190,000 acres of classified land in the flood plains above Millwood were previously discussed. The water-supply benefits of $3,266,000 is a high estimate and exceeds the special report of September 1955, in which 500 million gallons per day was estimated to have a value of $2,211,000 annually.

The benefit of Millwood Reservoir as authorized is estimated as $2,452,000. If the storage capacity at Millwood is reduced and this project considered as an integral part of the system as proposed in the all-purpose plan, approximately 50 percent of this benefit would accrue to the upstream reservoirs.

These estimates and monetary values are found in the report on the Arkansas-White-Red River Basins, part II, section 2, under "Little River multiple-purpose plan, Oklahoma and Arkansas," and on "Hydroelectric power" in part II, section 7, tables 5 and 20 (a).

We are in full accord with the statement as quoted from the Corps of Engineers' comment on the tentative plan of development, except their statement that the system of reservoirs lack economic justification in monetary terms. We believe the underestimate of flood-control benefits and reallocation of the flood benefit for the modified Millwood Reservoir will meet the monetary requirements for the all-purpose plan.

Pertinent data

Plant	Stream	River mile	Drainage area, square miles	Top of dam			Top of flood control		
				Corps		All-purpose plan, elevation	Corps		All-purpose plan, elevation
				Arkansas-White-Red, elevation	September 1955 report, mean sea level		Arkansas-White-Red, elevation	September 1955 report, mean sea level	
Caney	Little River	164.0	445			650			637.0
Pine	do	150.0	637	503.0	510.5	506	489	478.0	495.0
Lukfata	Glover	16.8	291	656.0	614.0	653	621	586.0	638.0
Narrows	Mountain Fork	44.4	601	768.0		768	746		758.0
Broken Bow [1]	do	20.0	756	618.5	592.5	600	593	565.0	587.0
Chapel Hill [2]	Rolling Fork	22.8	169	523.0	490.5	510	501	464.0	500.0
Gilham	Cossatot	47.7	277	607.0	581.5	612	600	554.0	600.5
Dierks	Saline	54.0	109		575.5	593		551.9	580.0
Millwood	Little River	16.0	4,144	309.5	299.5	285	291	285.5	276.5

[1] Sherwood.
[2] DeQueen.

Reservoir storage

[Thousands of acre-feet]

Plant	Flood control			Power storage			Water supply			Dead storage			Totals		
	Corps		All purpose	Corps		All purpose	Corps		All purpose	Corps		All purpose	Corps		All purpose
	Arkansas-White-Red	Report		Arkansas-White-Red	Report		Arkansas-White-Red	Report		Arkansas-White-Red	Report		Arkansas-White-Red	Report	
Caney			260			287			(1)			150			697
Pine	382	378.0	113	198		123		70.0		82	7.0	557	662	455	793
Lukfata	174	172.0	171	145		177		31.0		63	4.0	150	382	207	498
Narrows	237		354	391		490				105		150	733		994
Broken Bow [2]	232	443.0	91	83		127		81.0		578	10.0	588	893	534	806
Chapel Hill [3]	103	101.0	100	100		112		18.0		101	2.0	83	304	121	295
Gilham	166	164.6	165	172		226		29.2		147	4.2	100	485	198	491
Dierks	67	66.0	64	70		79		12.1		42	1.9	41	179	80	184
Millwood	2,208	1,666.0	1,000	None		None		None		52	52.0	50	2,260	1,718	1,050
Total	3,569	2,990.6	2,318	1,159		1,621		241.3		1,170	81.1	1,869	5,898	3,313	5,808

[1] Needs supplied from regulated flow from powerplants and dead storage in emergencies.
[2] Sherwood.
[3] DeQueen.

Hydroelectric power data

Plant	Corps, Arkansas-White-Red			All purpose		
	Installed capacity	Primary	Average amount	Installed capacity	Primary	Average amount
	Kilowatts	*Kilowatt-hours*	*Millions*	*Kilowatts*	*Kilowatt-hours*	*Millions*
Caney				24,000	31.2	40.3
Pine	15,000	19.5	44.0	30,000	38.6	49.5
Lukfata	20,000	22.9	37.2	22,000	29.1	37.4
Narrows [1]	50,000	65.7	88.2	50,000	65.3	84.1
Broken Bow	75,000	98.6	127.9	70,000	89.4	113.0
Chapel Hill [2]	13,000	14.7	20.5	8,000	11.7	15.0
Gillham	25,000	32.5	45.5	22,000	30.2	38.2
Dierks	7,000	8.2	11.6	6,000	7.9	10.4
Total	205,000	262.1	374.9	232,000	303.4	387.9

[1] Sherwood.
[2] DeQueen.

LITTLE RIVER MULTIPLE-PURPOSE PLAN, OKLAHOMA AND ARKANSAS

1. General Information

Project name: Little River multiple-purpose plan, Oklahoma and Arkansas.
Location: On tributaries and main stem of Little River, Sevier County, Ark., and McCurtain County, Okla.
Major purposes: Flood control, power, and water supply.
Planning data located at: Corps of Engineers district office, Tulsa, Okla.

2. Scope of Investigations

The major portions of the investigations for this plan are of survey scope. Some features of the studies are of preliminary examination scope as discussed hereinafter.

3. Description of Project

PHYSICAL FEATURES

The Little River multiple-purpose plan includes the following:
Mountain Fork project, consisting of the Sherwood (Narrows) and the Broken Bow Reservoirs on Mountain Fork; Pine Creek Reservoir on Little River; Lukfata Reservoir on Glover Creek; DeQueen Reservoir on Rolling Fork Creek; Gillham Reservoir on Cossatot River; Dierks Reservoir on Saline River.
The project is a solution for the major flood, power, and water-supply problems of the area. Pertinent data for the above units are shown in the tabulation on the following page.

Item	Mountain Fork project		Pine Creek Reservoir	Lukfata Reservoir	DeQueen Reservoir	Gillam Reservoir	Dierks Reservoir
	Sherwood	Broken Bow					
Location:							
Stream name	Mountain Fork	Mountain Fork	Little River	Glover Creek	Rolling Fork	Cossatot	Saline
Stream mile	44.4	19.6	145.3	16.8	22.8	47.7	57.0
State	Oklahoma	Oklahoma	Oklahoma	Oklahoma	Arkansas	Arkansas	Arkansas
Reservoir area (acres):							
Top of flood-control pool	18,900	15,000	20,700	6,320	6,540	8,220	4,760
Top of power or conservation pool	13,100	12,400	11,500	3,830	4,940	6,220	3,290
Reservoir storage (acre-feet):							
Flood control	237,000	232,000	382,000	174,000	103,000	166,000	67,000
Power drawdown	391,000	83,000	198,000	145,000	100,000	172,000	70,000
Power dead storage, sediment and other	105,000	578,000	82,000	63,000	101,000	147,000	42,000
Total storage	733,000	893,000	662,000	382,000	304,000	485,000	179,000
Runoff controlled in flood-control storage (inches)	7.4	5.8	11.3	11.2	11.4	11.2	11.1
Dam (type, all rolled earth fill):							
Crest length (feet)	1,690	1,855	6,145	3,325	2,640	2,280	2,900
Height above streambed (feet)	192	203	126	207	169	192	160
Spillway (type, all concrete): Design capacity (cubic feet per second)	[1] 124,000	[1] 196,000	[1] 176,000	[1] 127,000	[1] 72,000	[2] 175,000	[1] 64,000
Outlet works:							
Number of controlled openings	2	2	2	2	2	2	2
Design capacity (cubic feet per second)	16,900	16,100	8,400	16,300	8,000	19,400	15,500
Power installation: Number of generators	2	3	1	2	1	2	1
Total capacity (kilowatts)	50,000	75,000	15,000	20,000	13,000	25,000	7,000

[1] Uncontrolled.
[2] Controlled.

PROJECT USES

Flood control

The individual reservoirs in the plan would have controlled the maximum flood of record at their respective dam sites except for Sherwood (Narrows) and Broken Bow which would have controlled the second flood of record. The 7 reservoirs of the Little River multiple-purpose plan would prevent about 76 percent of the average annual flood losses in the Little River Basin below the dam sites to the upper limits of the authorized Millwood Reservoir. The 7 reservoirs would have reduced the peak discharge of the maximum flood of record (April 1945) at the authorized Millwood Dam site from 125,000 cubic feet per second to 99,200 cubic feet per second, and the peak stages from 268.5 mean sea level to 267.0 feet mean sea level. Flood protection afforded on tributaries below the respective dam sites is shown in the following tabulation:

Reservoir	Stream	Percent reduction of average annual flood losses
Mountain Fork (Sherwood and Broken Bow).	Mountain Fork	84
Pine Creek	Little River (between dam site and mouth of Glover Creek).	89
Lukfata	Glover Creek	63
DeQueen	Rolling Fork	87
Gillham	Cossatot	63
Dierks	Saline	71

Power

Each power project is planned to operate in conjunction with other projects of the Little River system and Denison Reservoir. In most cases, the critical hydro period for the Little River Basin occurs at a different time than the Denison critical hydro period. This allows for diversity of streamflows and is mutually beneficial to both the Little River projects and Denison Reservoir.

The Sherwood project with an installed capacity of 50,000 kilowatts would have an annual power output of 88.2 million kilowatt-hours. The maximum capacity at minimum head would be 50,000 kilowatts.

The Broken Bow project with an installed capacity of 75,000 kilowatts would have an annual power output of 127.9 million kilowatt-hours. The maximum capability at minimum head would be 75,000 kilowatts.

The Pine Creek project with an installed capacity of 15,000 kilowatts would have an annual power output of 44 million kilowatt-hours. The maximum capability at minimum head would be 14,900 kilowatts.

The Gillham project with an installed capacity of 25,000 kilowatts would have an annual power output of 45.5 million kilowatt-hours. The maximum capability at minimum head would be 24,700 kilowatts.

The Lukfata project with an installed capacity of 20,000 kilowatts would have an annual power output of 37.2 million kilowatt-hours. The maximum capability at minimum head would be 17,400 kilowatts.

The DeQueen project with an installed capacity of 13,000 kilowatts would have an annual power output of 20.5 million kilowatt-hours. The maximum capability at minimum head would be 11,200 kilowatts.

The Dierks project with an installed capacity of 7,000 kilowatts would have an annual power output of 11.6 million kilowatt-hours. The maximum capability at minimum head would be 6,300 kilowatts.

Water supply

In the Little River Basin both surface water and ground water are used for supplying water needs. The present use of domestic and industrial water in the basin is about 3 million gallons per day. It is probable that future use of water from this basin will have little relationship to the present use. The Little River watershed is a forested, mountainous area in which lumbering is the principal industry. These factors in themselves would indicate a small future water use, but there are other factors which make it possible that future water use will be great. These factors are that the chemical quality of water in the Little River is excellent and that the use of water by paper pulp mills, which

are frequently located in the vicinity of forests, could be very large. A demand for this excellent water could develop from outside the basin, possibly as far away as the Dallas, Tex., area. If the water were used for the dilution of waste liquors from paper pulp mills the use could run as high as 160 million gallons per day for each mill, according to a statement by the Dierks Coal & Lumber Co. It would take only a few such mills to utilize the entire regulated flow of the Little River.

Provision of drawdown storage in the Little River projects for the production of hydroelectric power would provide a regulated outflow which would be of a fluctuating nature, because of the necessity of using this power for peaking purposes on the system load. These fluctuations would be severe immediately below the powerplants, but would be considerably dampened during flow through natural pools in the streams. The proposed installed capacity of the powerplants in this basin was based on a system operation in conjunction with the Denison project. During the critical hydro period in the Little River Basin the Denison powerplant would have no difficulty in carrying the extra load, so the power installations reflect the ability of the Little River projects to assist with the load during the critical hydro period of the Denison project. In connection with outflow from the reservoirs during dry periods, the assumption was made that each project would operate at a rate equal to its installed capacity for at least 5 percent of each day. Under this assumption, data concerning power drawdown storage and average daily outflow during dry periods would be as in the tabulation below. It is these flows upon which the water-supply benefits for the Little River multiple-purpose plan are based.

Reservoir	Power drawdown storage (acre-feet)	Minimum mean daily outflow (cubic feet per second)
Pine Creek	198,000	120
Lukfata	145,000	90
Sherwood (Narrows)-Broken Bow	474,000	310
DeQueen	100,000	75
Gillham	172,000	110
Dierks	70,000	42
Total	1,159,000	[1] 747

[1] Equivalent to about 483 million gallons per day.

RECREATION AND PUBLIC USE

Mountain Fork (Sherwood and Broken Bow)

Opportunity for day-use recreation for the population of eastern McCurtain County is found at Beavers Bend State Park and on the streams and lakes in this area. The nearest existing lake of any size is Lake Texoma, about 90 miles west of the project, where facilities are present for recreational opportunities associated with a large water area.

Broken Bow Reservoir would adequately provide such a lake area for the county and this region of the State. The attendance at the State park (195,146 in 1954) would indicate that a regional attraction for tourist and vacation use has resulted from the facilities and services available. The extension of the park to include a part of the proposed reservoir, with other development of the project, would appreciably supplement the regional attraction.

Sherwood (Narrows) Reservoir would provide additional recreational values for this region through a large water area in a scenic region of Oklahoma. Local needs, in connection with a large lake area, would be satisfied by many sites for day-use activities. This reservoir is proposed to be operated with the Broken Bow Reservoir, which adjoins downstream. The fluctuations of the lake resulting from such operation would encourage permanent installations, such as extensive concessions and organized camps, to be developed on the lower Broken Bow project. The two projects, in combination, would be a major recreational resource for the region.

Pine Creek Reservoir

The population of southeast Oklahoma is adequately served for recreational opportunities by Lake Texoma and the streams and forests of the Ouachita

Mountains. The Pine Creek Reservoir would be of importance, with the other considered projects of the Little River Basin, in a regional lake area which would serve three adjoining States. A lake of 11,500 acres in a scenic area will have considerable value in providing recreational attraction for State and out-of-State visitors.

Lukfata Reservoir

The Lukfata Reservoir would be of importance, with the other considered projects of the Little River Basin, in a regional lake area which would serve three adjoining States. The lake impounded by Lukfata Reservoir is in an area of high recreational potential. The other projects of the basin would be of greater individual importance in providing opportunities for recreation; however, this project will be of value by itself and in the systems of reservoirs in providing a regional recreation area.

DeQueen and Gillham and Dierks Reservoirs

The opportunity for day-use recreation serving the sparse rural population and small communities of eastern McCurtain County, Okla., and Sevier County, Ark., is obtained from existing streams, forest areas, and an Oklahoma State park. The nearest water areas of any size and with available facilities are Lake Texoma, approximately 150 miles west, and Lake Sam Greeson, 75 miles east. The visitor attraction of Beavers Bend (195,146 visitors in 1954) indicates the recreation potential of this area and the needs which the proposed reservoir may satisfy beyond that for the local population. The DeQueen, Gillham, and Dierks Reservoirs would provide important recreational values for this region through the creation of large lake areas in a scenic region of Arkansas.

INTERRELATIONSHIP WITH OTHER PROJECTS AND PROGRAMS

SCOPE OF HYDROLOGIC INVESTIGATIONS

Survey scope.

EFFECTS OF PROJECT OPERATIONS

Flood control.—The 7 reservoirs operating in conjunction with Millwood Reservoir and the Red River projects of Hugo, Boswell, and Denison Reservoirs would have reduced the peak stage of the maximum flood of record at the Fulton, Ark., gage (April 1945), located on the Red River about 3 miles below the mouth of the Little River from 37.4 feeet to 27.4 feet (0.4 foot above bankfull), and the peak discharge from 276,000 cubic feet per second to 132,000 cubic feet per second.

Power.—When power is generated at Sherwood, the average discharge from the reservoir during the Denison critical hydro period would be 826 cubic feet per second. This discharge would provide a regulated inflow into Broken Bow Reservoir in excess of the inflow during the same critical hydro period at Broken Bow, and would insure a minimum power potential at the Broken Bow plant of about 11,250 kilowatts.

CORRELATION WITH OTHER PROJECTS AND PROGRAMS

Other than drainage improvements and land-treatment measures there are no other projects or programs proposed in the Little River Basin. The effect of the seven-reservoir plan operated alone and in conjunction with Millwood Reservoir and other authorized projects is discussed above. The frequency of flooding with the Little River reservoirs operating has not been determined; however, preliminary considerations indicate that frequency of flooding would be reduced sufficiently to make drainage feasible on Glover Creek below Lukfata Reservoir, on Mountain Fork River below Broken Bow Reservoir, and in the reach of Little River immediately below Pine Creek Reservoir. It is considered that the frequency of flooding would not be sufficiently reduced to make drainage feasible in that reach of the Little River immediately above the mouth of Mountain Fork River. Operation of the reservoirs should be coordinated with the adopted flood-forecasting service for overall water management of the basin.

CORRELATION WITH WATER REGULATORY LAWS

No investigation has been made to determine the interrelationship of established water rights under the laws of the States of Oklahoma and Arkansas, and the operation of the multiple-purpose plan.

INTERRELATIONSHIP WITH OTHER FUNCTIONS

Low flows

The flow records at gaging stations in the Little River Basin show that some periods of no flow have occurred during the 20-year study period. There is no conservation storage provided in the seven-reservoir system other than that proposed for power purposes, but it is intended to make the power releases available for domestic and industrial uses.

Minerals

Pine Creek Reservoir.—No known mineral deposits of present or potential economic importance exist within the reservoir site. The Oklahoma Geological Survey reports gravel deposits having an estimated reserve of 150,000 cubic yards are present in the SE¼SE¼ of section 9, SW¼NW¼ of section 15, and NW¼NE¼ of section 16, T. 5 S., R. 21 E., McCurtain County. These deposits lie slightly above the proposed shoreline of the reservoir. These deposits were not examined by Federal Bureau of Mines engineers.

Lukfata Reservoir—The Lukfata Reservoir will not affect any known mineral resources.

Mountain Fork project—

Sherwood Reservoir: Veins containing lead, zinc, and copper minerals have been prospected in the vicinity of Watson, adjacent to the east side of the reservoir site. None of the deposits has proved to be of economic importance.

Shale has been produced from deposits within the reservoir site for use in road surfacing. A plentiful supply of this shale is available in area surrounding the proposed reservoir. No other mineral resources of potential value is known to exist in and adjacent to the reservoir site.

Broken Bow Reservoir: Outchops of shale, sandstone, chert, and novaculite cross the reservoir site. The novaculite adjacent to the east edge of the reservoir site contains some manganese deposits that have been worked sporadically on a small scale. The proposed reservoir would have no adverse effects on the deposits.

De Queen Reservoir.—Several inactive zinc-lead-copper mines and prospects are situated in or adjacent to the reservoir site. One of the mines, the Bellah, in sections 27 and 28, T. 7 S., R. 32 W., and one or more prospects will be inundated by the proposed reservoir. The Bellah mine was worked during the Civil War as a lead mine and later as a zinc mine intermittently until 1912. Production data are not recorded, but reports indicate that the mine was developed by several shafts and ore was mined above two of the levels driven from the main shaft. The mine workings have been inaccessible for many years so that evaluation of the property relative to remaining mineral resources is not possible. Prior to construction of the dam, the mineralized zone should be tested laterally and to depth for possible extensions of ore deposition. The Davis mine, in the NW¼ section 10, T. 7 S., R. 32 W. is adjacent to the north end of the reservoir site. The mine was worked sporadically from 1842 until 1918. Recorded production was 2,000 tons of lead-zinc ore. The property will not be affected by the reservoir.

Three inactive antimony mines are situated adjacent to the proposed reservoir and two prospects are within the reservoir site. The two prospects, both of which will be inundated, are the Hankins and the Lignitz, in the SE¼NE¼ and the SW¼NE¼ sec. 26, T. 7 S., R. 32 W., respectively. There is no tangible evidence that either of the prospects disclosed mineralization of potential economic value. The three mines are east of the reservoir site in secs. 19 and 20, T. 7 S., R. 31 W. The Otto mine has been the chief producer of the three. It was reopened in 1951 for exploration under a DMEA contract, but was inactive in 1952–53. The other two mines, both of which have yielded small tonnages of antimony ore, are the Brewer and the Valley.

Gillham Reservoir.—Mineral resources of economic importance have not been noted in the reservoir site. In the vicinity of the proposed reservoir, a small tonnage of antimony ore has been produced from a property in sec. 6, T. 7 S., R. 30 W., about a mile south of the dam site; and quartz crystals are found occasionally in plowed fields in the N½ sec. 27, T. 5 S., R. 30 W.

Dierks Reservoir.—The reservoir site contains no known mineral resources of economic importance. Some prospecting for copper ore has been reported in sec. 16, T. 7 S., R. 29 W., but there is no evidence that an ore discovery was ever made in the locality.

Economic Evaluation

A summary of monetary costs and benefits is shown in the table on pages 34, 35, and 36.

FISH AND WILDLIFE ASPECTS

The United States Fish and Wildlife Service and the State game and fish department state: "The project would flood out some (see list below) of the finest fishing streams in Oklahoma and Arkansas, replacing a smallmouth-bass fishery of exceedingly high value with a type of fishing common in the vicinity. A need does not exist in the area for additional opportunities for lake or reservoir fishing."

Reservoir:	*Miles of streams*
Pine Creek	14
Lukfata	16
Mountain Fork:	
Sherwood	19
Broken Bow	20
De Queen	6
Gillham	13
Dierks	6

There are only 4 sizable streams in the entire State of Oklahoma which furnish this high quality type of fishing, and 1 of these has been dammed and many miles of stream fishing eliminated. Projects presently proposed in the Little River Basin would eliminate large portions of the remaining three streams in Oklahoma.

The mission of fish and wildlife administration is to provide qualitative and quantitative fishing and hunting opportunities for the public. This involves the achievement of diversification in fishable and huntable species and the concomitant variations in methods of harvest which the public demands. This stream and the accompanying streamside habitat provide much-needed diversification and thereby occupy an extremely important position in the State fish and wildlife resource picture.

Considering the absence of any needs for additional opportunities for lake fishing, the drawing of fishermen from existing and authorized and previously recommended reservoirs, and the quality of fishery that would be destroyed, only negative fishery benefits could be assigned to these reservoirs.

Many acres (see list below) of habitat of value to upland game, big game, and fur animals would be destroyed by inundation in the reservoir areas. The reservoir sites occupy an important part of the deer habitat, and its destruction would further increase the critical need for more big-game hunting. The annual influx of 10,000 or more deer hunters into the Kiamichi Mountains for a short open season indicates the importance of this type of hunting within the area.

Monetary costs and benefits

[Amounts in thousands]

Project [1]	Pine Creek Reservoir	Lukfata Reservoir	Mountain Fork project	DeQueen Reservoir	Gillham Reservoir	Dierks Reservoir	Total
Construction costs:							
Federal	$17,679	$17,429	$47,297	$11,588	$17,309	$10,596	[2] [3] $121,895
Non-Federal [2]							
Total	17,679	17,429	47,297	11,588	17,309	10,596	[2] [3] 121,895
Annual equivalent construction costs	620	614	1,633	408	609	373	[2] [3] 4,257
Annual operation, maintenance, and replacement:							
Federal	226	255	644	202	265	169	1,761
Non-Federal			15				15
Total	226	255	659	202	265	169	[3] 1,776
Other annual economic costs [4]	72	67	578	42	100	26	885
Total annual economic costs	918	936	2,870	652	974	568	[3] 6,918
Annual monetary benefits:							
Primary	181	230	3,975	[5] 117	1,164	[5] 110	[7] 5,777
Secondary			239		91		330
Total	181	230	[3] 4,214	[5] 117	[3] 1,255	[5] 110	[7] 6,107

[1] Purposes for all projects are flood control, domestic and industrial water supply, and hydroelectric power.
[2] Division of Federal and non-Federal costs have not been determined.
[3] Cost and annual charges shown in tabulation include the items listed below. Where annual equivalent costs are not set out separately, they have been estimated and included in the total annual economic costs totals for the line items of the individual projects.

Reservoir	Item			
	Minimum basic public-use facilities		Coordination of planning fish and wildlife measures	Preliminary estimates for investigations by U. S. Fish and Wildlife Service
	Cost	Annual charges		
Pine Creek	192.0	20.0	6.0	6.0
Lukfata	40.0	16.0	4.0	4.0
Mountain Fork	415.0	43.0	12.0	12.0
DeQueen	89.0	15.0	6.0	3.5
Gillham	125.0	20.0	6.0	4.0
Dierks	71.0	13.0	6.0	3.0

In addition, the estimates for the Mountain Fork project include a Federal construction cost of 964.0 for remedial fish and wildlife measures; annual equivalent construction costs of 34.0; and annual operation, maintenance, and replacement costs of 25.0 (10.0 Federal and 15.0 by appropriate fish and game agency); a total annual economic cost of 59.0. The measures recommended and the costs thereof have not yet been completely worked out and agreed upon between the fish and wildlife agencies and the construction and planning agencies. Other estimates of the U. S. Fish and Wildlife Service as indicated below have not been included in the project estimates.

Reservoir	Remedial fish and wildlife costs		
	Federal construction cost	Annual equivalent cost	Annual operation, maintenance, and replacement
Pine Creek	1,000.0	35.3	26.0
Lukfata	800.0	28.3	20.0
DeQueen	400.0	14.1	6.0
Gillham	450.0	15.9	8.0
Dierks	350.0	12.3	6.0

Footnotes continued on page 183.

Operation of the reservoirs would render it of minimum use for waterfowl, as little or no foods would be produced in the steep-sided, fluctuating impoundment. Such minor benefits would be more than offset by the removal of many acres (see list below) of excellent waterfowl habitat from the maximum zone of flooding in the lower Little River Valley as a result of flood-control operation of the reservoirs.

Footnotes continued from preceding page.

[4] Includes net loss of agricultural production within project area after deducting compensation cost for acquisition of project lands. This amount also includes estimates of taxes foregone as a result of Federal construction of power projects. These amounts are tabulated below:

Reservoir	Net loss of agricultural production	Taxes foregone
Pine Creek	6	66
Lukfata	4	63
Mountain Fork (Sherwood and Broken Bow)	33	545
DeQueen	9	33
Gillham	6	94
Dierks	0	26

[5] These benefits are not additive. See footnotes 6, 7, 8, and 9 below.

[6] These amounts are for primary power benefits only. These primary power benefits are based on alternative private steam-electric stations and Federal hydro transmissions. Primary power benefits based on 2 other methods are listed below:

Reservoir	Method and primary power benefits	
	Private steam and transmission	Private steam and transmission with taxes and interest rates comparable to those used for the hydro project Bureau of Budget Circular A–47)
Pine Creek	111.0	86.0
Lukfata	221.0	138.0
DeQueen	108.0	69.0
Dierks	103.0	72.0

[7] The flood-control benefits have been estimated for the plan operating as a system. The total flood-control benefits for the plan total 442.0, of which 349.0 are primary benefits and 93.0 are secondary benefits. About 105.0 and 78.0 of these benefits have been tentatively assigned to the Mountain Fork and Gillham projects, respectively. The total benefits shown as 6,366.0 include 442.0 flood-control benefits; 2,658.0 primary power benefits (secondary power benefits of 266.0 not used); and there are 3,266.0 water-supply benefits for the Mountain Fork (2,410) and Gillham (856.0) projects. Water-supply benefits are not included for Pine Creek, Lukfata, DeQueen, and Dierks Reservoirs.

[8] Includes primary power benefits amounting to 1,699.0 on alternative private steam-electric stations and Federal hydro transmissions; power benefits would be 1,487.0 based on private steam-electric stations and private hydro transmissions, and 912.0 (in accordance with Bureau of Budget Circular A–47) based on steam-electric station and hydro transmission costs using taxes and interest rates comparable to those used for the hydroproject. This figure also includes water-supply benefits evaluated by AWR expedient procedures amounting to 2,410.0 (primary 2,191.0, secondary 219.0). Flood-control benefits amounting to 105.0 are included.

[9] This figure includes primary power benefits of 321.0 and primary and secondary water-supply benefits of 856. Flood-control benefits amounting to 78.0 are included. Power benefits would be 299.0 based on private steam-electric stations and private hydro transmissions and 185.0 (in accordance with Bureau of the Budget Circular A–47) based on steam-electric stations and hydro transmission costs using taxes and interest rates comparable to those used for the hydro project.

Reservoir	Acres of forest game loss	Acres of upland game, big game and fur animals habitat loss	Acres of waterfowl habitat loss
Pine Creek		14,600	8,300
Lukfata		4,700	9,100
Mountain Fork:			
Sherwood		15,100	5,800
Broken Bow		13,300	
DeQueen	2,800	5,500	3,000
Gillham	2,360	6,900	2,300
Dierks	3,400	3,800	3,400

The Tulsa district corps of engineers indicates that, based on past experience, the project would provide greatly increased fish and wildlife utilization as compared to the use made of the preimpoundment area.

The conservation, maintenance, and management of fish and wildlife as a means of natural-resource development of the reservoir areas is one of the desirable functions of the project. To accomplish this the United States Fish and Wildlife Service and the Oklahoma Game and Fish Department propose construction of an afterbay below the reservoirs in order that a constant flow of water (see list below) may be released into the stream at all times, except during flood periods. The United States Fish and Wildlife Service and the Arkansas Game and Fish Department propose minimum releases of water to provide for a flow at all times below the dams of the specified amount (see list below) or the natural inflow of the reservoir, whichever is the lesser. To further accomplish this purpose it is proposed that lands be furnished to the appropriate State game and fish department for game-management purposes. These lands should be purchased, initially developed, and, after developments are established, placed under wildlife management by the State game and fish department. These measures would serve to compensate in part or whole for the loss of fish and wildlife habitat.

Reservoir	Proposed streamflow below dam site (cubic feet per second)	Land for game management purposes (acres)
Pine Creek	400	22,900
Lukfata	180	13,800
Mountain Fork:		
Sherwood	490	15,000
Broken Bow	600	13,000
DeQueen	[1] 50	8,000
Gillham	[1] 50	9,000
Dierks	[1] 50	7,000

[1] Minimum streamflow to be as shown, or natural inflow into reservoir.

ASSOCIATED COSTS REQUIRED TO INSURE THAT THE BENEFITS CLAIMED WILL BE FORTHCOMING

All costs required to realize the power and water-supply benefits claimed are included in the project analysis. However, additional facilities would be required to make the power and water available to the consumer.

SUPPORTING PROGRAMS; NONMONETARY COSTS; NONMONETARY BENEFITS

6. Basis for Arriving at Scale of Development Selected

The reservoirs of the Little River multiple-purpose plan are considered to be adaptable for development of flood-control and power projects and would be operated as a system for flood protection in the Little River Basin and on Red River below the mouth of Little River. The scale of development is based on prime power releases at each of the 7 reservoirs operated as a system for the critical dry period from July 1938 to January 1941, inclusive, for power storage,

and the flood-control storages are based on studies of the 3 major floods of record in the Little River Basin with the 7 reservoirs operated as a system. These studies indicate that flood-control storages equivalent to about 11.0 inches of runoff are desirable in each of the reservoirs.

7. Repayment and Cost Allocation

8. Other Considerations

9. Additional Investigations Required

The investigations that have been made are considered adequate for the purpose of project evaluation. However, prior to authorization, review of economic data and of plans and cost estimates would be required. Other features that would need additional work include coordination of the potential power production with that of other projects; investigation of recreation, fish and wildlife, mosquito control, pollution, minerals and archeological aspects; investigation of water-supply needs and possible solutions, including source and quality; and investigation of ability and attitude of local interests toward meeting requirements for local participation. A thorough study will be needed of hydroelectric-power operation of this project and other Little River projects as part of a widespread system in the AWR area to insure increase in benefits due to diversity in flow. Also, to be investigated would be the economic aspects of using water for production of power and later withdrawing it from the stream for water supply or of allocating definite storage in the reservoirs for water supply.

The plan presented in this evaluation statement is subject to modification upon completion of further studies of water resources development in the Little River Basin. Present indications are that hydroelectric power, under current criteria for economic analysis, should not be included in the initial development, but should be included in the long-range plan. These studies also show that Broken Bow and Gillham appear to be the more favorable units for flood control and water supply.

Senator Kerr. Senator Monroney, we will let you determine how you want to proceed.

Senator Monroney. I would like to follow the witnesses.

Senator Kerr. All right; introduce the witnesses and then you may make your statement.

I want to insert into the record, also at this point, a copy of S. 3483, which is the legislation sponsored by Senator Monroney and myself, to bring about this authorization.

(The above-mentioned bill is as follows:)

[S. 3483, 84th Cong., 2d sess.]

A BILL To modify the authorized project for construction of the Millwood Reservoir on the Little River in Arkansas, to include the construction of the Pine Creek, Lukfata, Sherwood (Narrows), and Broken Bow Reservoirs

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the general plan for flood control on Red River, Texas, Oklahoma, Arkansas, and Louisiana (House Document Numbered 602, Seventy-ninth Congress), authorized by section 10 of the Flood Control Act of 1946 (60 Stat. 647), is hereby modified to include the construction of the following reservoirs:

(1) The Pine Creek Reservoir on the Little River;
(2) The Lukfata Reservoir on Glover Creek;
(3) The Sherwood (Narrows) Reservoir on Mountain Fork Creek; and
(4) The Broken Bow Reservoir on Mountain Fork Creek;

with such further modifications in such general plan as the Chief of Engineers may find advisable in view of the inclusion of such reservoirs in such general plan.

Senator Kerr. There have been communications from the Bureau of the Budget and Department of the Army in response to letters by the chairman of the committee, requesting their comment on this

legislation and they will be made a part of the record at this point.

(The above-mentioned letters are as follows:)

DEPARTMENT OF THE ARMY,
June 26, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 3483, 84th Congress, a bill to modify the authorized project for construction of the Millwood Reservoir on the Little River in Arkansas, to include the construction of the Pine Creek, Lukfata, Sherwood (Narrows), and Broken Bow Reservoirs.

The Department of the Army has considered the above-mentioned bill, the purpose of which is stated in the title.

This Department has authority to make a survey of alternate sites for the Milwood Reservoir, Ark., in the Red River Basin, in response to an item contained in the Flood Control Act of 1950. The report on this study, which is now before the Board of Engineers for Rivers and Harbors, will contain recommendations concerning alternatives considered with a view to modifying the authorized Millwood project.

It is suggested that the committee may wish to defer action on authorizing legislation until the report has been submitted to Congress.

The Bureau of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

WILBER M. BRUCKER,
Secretary of the Army.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., June 21, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate, Washington, D. C.

MY DEAR MR. CHAIRMAN: This is in reply to your letter of March 20, 1956, requesting the views of the Bureau of the Budget on S. 3483, a bill to modify the authorized project for construction of the Millwood Reservoir on the Little River in Arkansas to include the construction of the Pine Creek, Lukfata, Sherwood (Narrows), and Broken Bow Reservoirs.

The Department of the Army has not yet submitted its report on a survey of alternate sites for the Millwood Reservoir, Arkansas, to the Bureau of the Budget under procedures prescribed by Executive Order 9384. Until this report has been reviewed the Bureau of the Budget has no basis for appraising the merits of S. 3483. In the report he is making to your committee on this bill the Secretary of the Army suggests that action be deferred until the project report has been submitted to Congress.

Accordingly the Bureau of the Budget would recommend that your committee defer action on S. 3483 until the report has been submitted to the Congress in accordance with established procedures. In addition, the Bureau would question whether, except in emergencies or rare instances of very large multiple-purpose projects, single project bills should be favorably considered. The Congress has customarily taken up from time to time all project reports pending before it and has enacted a general river and harbor and flood control bill. It is our belief that such consideration of the relative merits of a number of projects provides a better basis of selection than piecemeal action on individual bills.

Sincerely yours,

ROBERT E. MERRIAM,
Assistant to the Director.

Senator MONRONEY. Mr. Chairman, I think Mr. Norris should go first.

STATEMENT OF HAROLD NORRIS, PRESIDENT OF THE BROKEN BOW CHAMBER OF COMMERCE, BROKEN BOW, OKLA.

Mr. NORRIS. I am Harold Norris, from Broken Bow, Okla., president of Broken Bow Chamber of Commerce; vice president of the Little River Valley Improvement Association, which is made up of more than 1,000 members from southwest Arkansas and southern Oklahoma.

Since 1920 we have been striving to get flood control in southern Oklahoma and had made quite a lot of progress until the major flood on the Red River in 1945, and they came up with the Flood Act of 1946 and authorized a dam, the Millwood Dam, which is near the mouth of Little River, thereby leaving unprotected more than 250 river miles, fine bottom land, and one of the finest sources of quality water there is left in the United States that is not developed.

Analysis shows that our water in most of our streams is of a superior quality. This water should have been in use a long time. The economy of the entire area, because of the frequent floods, two to three floods a year on the six tributaries of the Little River has brought bout a very undesirable economic situation, and I guess these upstream dams would have been authorized long before Millwood, but we have a lot of Indians in that country. When you hurt an Indian, he doesn't holler, and if the Indian doesn't holler, the white man can't holler. He is ashamed. So we just did not make as much fuss as the other people did.

But we have an amendment to this Millwood Dam which has been recommended by the engineers, and we object to the manner in which they want to build the dam. We think the upstream dams should be built prior to the Millwood situation, because by doing so it would give us flood protection and give us water as well as protect the lower Red River, which is the original intent and purpose of Millwood.

So we would like to see these upstream dams receive Millwood in conjunction, so that more people could benefit overall by the same action taken, and by so doing we will have available large quantities of fine water for industrial, recreational, and municipal and agricultural use. We would just like to see this amended proposal accepted by this board, and we think, like the Congressman from Ohio, it will be returned 100-fold to the Federal Government in benefits. That is about the only observation I can make.

Senator KERR. Thank you very much, Mr. Norris.

Senator Monroney?

Senator MONRONEY. I would like to have as our next witness Mr. Powell, who is president of the Little River Improvement Association.

Senator KERR. Mr. Powell.

STATEMENT OF P. A. POWELL, CHAIRMAN OF THE WATER AND RESOURCES COMMITTEE, CHAMBER OF COMMERCE, IDABEL, OKLA.

Mr. POWELL. I am from Idabel, and I represent the chamber of commerce by being chairman of the water and resources committee, as well as McCurtain County Development Association, an association within the county for development of that area.

We need these dams in McCurtain County very badly in order to develop that area. Our principal natural resource there is timber, and our second largest, and probably our greatest resource, is a great amount of superior water, as Mr. Norris has told you.

This water is very valuable in this particular area because of the dry conditions in Texas and Oklahoma. Now, there has been some question about whether we can dispose of this water profitably. People in this area and those who know the area fear that we will not have enough water in the dams to dispose of rather than too little.

We have industries, as well as municipalities, knocking at our door now, wanting priority on any water that we can dispose of. So there is no doubt from the governor on down to the most humble citizen in McCurtain County that we can dispose of the water profitably if we are given a chance to do so.

Now, there is one thing that we do object to in the report as it now stands. We are required by this report, as submitted by the engineers, to pay some $2 million flood-control benefits that accrue from these upstream dams. This requirement is not made below at Millwood, and we think it is inequitable to ask people in McCurtain County to pay for flood-control benefits that are not required downstream. We think that our land is just as valuable to the whole United States as is the land below Millwood Dam.

We also object, as Mr. Norris told you, to the manner and the time of building these dams. We contend that the way to build dams is to start upstream and to go down. We think that if our upstream dams are built first to their logical size, that then, you can determine better what size and to what extent you will need a Millwood Dam at the mouth of that river. You may not need it as large; you may need it larger, but at least, you will know what you need once the upstream dams are built.

Now, these dams and this wonderful water up there and these reservoirs, to use it to its ultimate capacity, we should develop hydroelectric power at these dams.

Senator GORE. Mr. Chairman, could I ask a question there?

Senator KERR. Yes.

Senator GORE. You have just mentioned the possibility of hydroelectric development. Is this drainage valley in the area of Oklahoma that has large rainfall?

Mr. POWELL. Yes, sir; we have around 50 inches a year.

Mr. NORRIS. About 55, largest rainfall in the State.

Senator KERR. I may make this statement there, Senator Gore, southeastern Oklahoma and southwestern Arkansas, in my judgment, provide the largest watershed with the most abundant supply of fresh unpolluted water that has not been preempted or utilized of any area of similar size between the Appalachian and the Rocky Mountains.

Senator GORE. Well, that is very interesting. Looking at the map, it did occur to me that it was located in an area of Oklahoma that has——

Senator KERR. From 50 to 55 inches average rainfall.

Senator GORE. Which is comparatively heavy rainfall.

Mr. NORRIS. Two of these streams will run a daily average flow of close to 1 billion gallons a day.

Senator GORE. Now, is this area not also a mountainous or precipitous area?

Mr. POWELL. Yes.

Senator GORE. Well then, both the annual rainfall and the character of terrain, it would appear to me, adds to the hydroelectric potentiality of this valley?

Mr. POWELL. Definitely.

Senator GORE. I suppose, Mr. Chairman, that the Corps of Engineers will be able to inform us on that?

Senator KERR. Yes.

Mr. POWELL. Our principal industry at the present time is sawmills. However, with this water and hydroelectric power, there is very possibility and even probability that we will be able to get a paper plant in there in a very short time after we get this water available and this power available. As a matter of fact, land has already been bought for that purpose. So, the water and hydroelectric power will enable this community to develop astronomically.

Therefore, we ask this committee to please give full consideration to all the potentialities of these three streams: The Little River and its two tributaries of Glover and Mountain Fork River in southern Oklahoma so that we might develop, as we should develop, and make this community a thriving community that it deserves to be.

Senator KERR. Thank you very much, Mr. Powell.

Senator Monroney.

STATEMENT OF HON. A. S. MIKE MONRONEY, A UNITED STATES SENATOR FROM THE STATE OF OKLAHOMA

Senator MONRONEY. Mr. Chairman, members of the committee, this is, I think, the most exciting project that we have in the whole Middle West.

Mr. Chairman, from the basis of taking a dam which no one wants, a dry dam, a mud flat, a single purpose flood-control dam——

Senator KERR. You are referring to the authorized Millwood project on Little River just above confluence with the Red River?

Senator MONRONEY. Which has been authorized for some 15 years, I believe, and which every local interest in the whole region has opposed its construction.

Senator KERR. Both Arkansas and Oklahoma.

Senator MONRONEY. Both Arkansas and Oklahoma. It is a dam that will have absolutely no use except for the single purpose, downstream, on the Red River. It takes this project, and for a modification cost of only $6 million, transforms this into the most exciting multipurpose dam that I have ever had the pleasure of studying or working on.

You move upstream from the Millwood Dam, and you construct 6 mountain reservoirs, reservoirs which will not only generate some 275 million kilowatt-hours of electricity, but would furnish for a water-starved area, including portions of Texas, Arkansas, and Oklahoma, the finest water supply that is known in any place short of the Rocky Mountains.

The area in which these upstream dams will be built is virtually uninhabited. It is rough, mountain terrain, uncultivated largely, and

there will be practically no displacement of any farm, city, or cultivated lands. The fact that the water runs through the primeval hills and mountains and woods there gives you this pure water and at the same time makes your investment in these upstream dams the most productive, because there is practically nothing involved in the cost of relocation of any facilities of any kind, utilities, railroads, or highways, or anything of that kind.

You get a hundred cents on your dollar as you locate those upstream dams. They are deep dams. They are dams which will generate tremendous electric power, as I have stated, that will impound sufficient water to furnish great cities with the water supply that if these cities are to grow and live in the Middle West, must have available to obtain.

When you consider that this whole modification of the project costs but $6 million more than the unwanted single-purpose dam, I think I am justified in saying that it is an exciting project.

Senator KERR. Would it be well at this point to call attention to the fact that if you agree with the conclusion that by this modification, through the sale of water for municipal and industrial consumption over the next 50 years, a very large percentage of the total cost of the flood-control program, including Millwood, would be recovered by the Federal Government, so that actually, they not only would have a more economic program and a more beneficial one, but by the modification, would be able to secure reimbursement for substantial portions of the entire investment?

Senator MONRONEY. I would say that that is exactly correct, that by these upstream dams, the hyro power that will develop, the water for sale to municipalities, such great municipalities as Dallas and Forth Worth——

Senator KERR. Oklahoma City.

Senator MONRONEY (continuing). And others that are desperate for water supply, that you will not only reimburse the cost of the upstream dams, but it will carry the cost of the auxiliary dam, the dry dam located at Millwood.

Now, in addition, you provide for flood-control protection on over 220,000 acres of fertile bottom land that otherwise would be unprotected because these are fertile valleys below here [indicating on the map] and the best cultivable in that section. But, with the Millwood single-purpose dam, they receive absolutely no flood protection and continue to be devastated not once a year, but 3 or 4 times a year by the overflows and the flood.

Many of these rivers are overflowing, particularly Mountain Fork, which overflows at least 3 or 4 times a year and they have to close traffic. So, you acquire all that protection there, in addition to other benefits up here.

It would seem to me that when you construct these dams, you will shrink the necessary size of Millwood by more than 25 percent and I actually believe that if you permit the construction of these upstream dams, you will find that Millwood can be reduced by 50 percent because these dams, where the high rainfall occurs, will be able to impound the water and make even a lesser amount of Millwood necessary.

Another important feature, if you build these dams up here [indicating] the Government would only have to take the dam site alone for Millwood out of private ownership. They will acquire merely the

few hundred acres necessary for this big dam which will be an auxiliary dry dam and will secure easements from the present property owners who are willing to give the easements and the Government will then pay whatever flood damage occurs when this reservoir is filled.

This is the finest timber stand in this valley that we have in the Middle West and if it is taken as a single dam and these dams are not built, then vast amounts of acreage will have to be taken. The dam will overflow, will be filled, perhaps once every 3 or 4 years, and the standing timber will be thus tremendously damaged.

We feel with these auxiliary dams, not once in 25 years, perhaps not once in 50, will this dam back up to any portion of its size and the Government will merely pay the owners of the land.

Senator KERR. Flowage easements?

Senator MONRONEY. Flowage easements on it and it will provide in that way for the most economical, the most practical, most beneficial flood-control program that I have ever seen during my 19 years in the Congress.

Now, on one point—this has been approved by the Board of Army Engineers—I must violently disagree that these people must pay the lion's share of the flood protection up here, while this whole project costs but $6 million more. We are merely revising a previous authorization to make the dam more practical, more usable, and more workable and if the local property owners are not charged for flood benefits down here, then why, if you move a portion of the dam up here, should these people be compelled to pay for land accretion values for protection from flood in merely making these upstream dams which benefit the Government and will bring in income, as you say, which will perhaps liquidate the entire cost of this project.

It seems to me to be very unfair, as we revise this program to make it more useful to the Government, more useful to the country, more useful to industry, more useful to municipalities hundreds of miles away, they would have water supply, to try to saddle on these people the cost of accretion of land values because the dams have been moved upstream, when you do not have it in the original Millwood authorization, which has been in the law for some 15 years or more.

So, we feel that they should not be saddled with that cost. We rather feel that the Government, if they build these dams, retain the rights to dispose of this water for the Government's benefit. As it is sold to municipal supply, it will not only recapture the money for the water storage, but will recapture enough money to liquidate not only the cost of the upstream dams, but the cost of the Millwood Dam itself.

Senator KERR. As reduced?

Senator MONRONEY. As reduced. Further, may I say, that Millwood Reservoir, as it was originally authorized, will flood out some of the industry that is located in that valley. First, a cement plant, one of the largest in Arkansas, according to testimony before the Army engineers, will be literally ruined if the Millwood Dam is constructed as presently authorized and the devastation to the lumbering industry, which is the main principal means of support of that area today, by the construction of Millwood Reservoir in its continued use periodically for overflow control under the present authorization, would devastate that industry.

So, instead of ruining the industry of that community with this new plan, it will make it, what I feel to be, a literal paradise for industry, for water supply, for reclamation, and for things of that nature.

It is necessary that we move rapidly on this and I hope the committee can get to it because the Federal Government is going to build a road through the national forest up here [indicating on the map] to connect with a mountain road coming down here to join Broken Bow and Idabel, which will be built by the State. But, until we resolve this matter and find out whether these dams are going to be built or not, we will hold up that project and that development of that whole southeastern area will not be possible.

Now, on this dam, there has been some question about its construction, some problem as to its individual feasibility [indicating], but I say to you in planning basinwide work on a river system, we would be foolish indeed to try and make any single dam stand alone.

These dams are part and parcel of the whole big problem that will protect the downstream people and you cannot individually assess the benefits. We feel that this dam here, which must be built, and there is a site where it could be slightly moved and it would in itself then, I feel, give you the economic justification singly. But certainly, in a program to revise and modernize and make this authorization workable and beneficial, the whole chain of dams as proposed on this chart should be authorized at this time and the cost should not be assessed to the local people because the Federal Government will make more money out of the benefits from hydro power and water supply than they would if they tried to compel these small communities to put up the cash in the first place.

Senator KERR. Are you familiar with the cost-benefit ratio of 1.47 for this modification?

Senator MONRONEY. Yes. I think it will run actually higher than that because I do not think they figured in as much water supply sales or nothing for recreation and no power, so you add those to it and I think you will get a tremendous justification.

Senator KERR. I think the Senator is entirely right. I think the actual evaluation of the reimbursable benefits that will certainly flow from the projects from available sources of revenue will make it one of the highest ratio of benefits to cost of any project that I have seen in that part of the country.

I am grateful to the witnesses and for the statement Senator Monroney has made. Are there any questions?

Senator HRUSKA. What is the total cost of the six dams?

Senator MONRONEY. Difference in the cost, I would say to the Senator, is between the original Millwood as authorized and the full program as you see here, with a 25-percent reduction in the size of Millwood, is only $6 million.

Senator HRUSKA. What is the total cost of the six dams in the amended plan that you have in mind?

Senator MONRONEY. I do not have that identical cost because we have only tried to figure it in the cost of the revision.

Senator KERR. General Itschner can put that in the record.

General ITSCHNER. The total cost of the six substitute dams is $57,355,000.

Senator HRUSKA. In this writeup sheet the total cost of the modified Millwood and upstream reservoirs is $103,035,000. What is that?

General ITSCHNER. Within that $103,035,000 is $57,355,000 for the six upstream reservoirs and the balance of $45,680,000 is the cost of the modified Millwood Reservoir.

Senator KERR. As against the original authorization or the present evaluation of the authorization of Millwood of what?

General ITSCHNER. Approximately $49 million.

Senator HRUSKA. Of the original Millwood development?

Mr. WEINKAUFF. Yes, sir; on a current price basis.

Senator HRUSKA. I cannot quite reconcile $6 million. Senator, what is that?

Senator KERR. I think the figure that the Senator has used there is giving effect to the reimbursable items that would be available, Senator.

General ITSCHNER. Could I clarify that? The $6 million is the additional cost to the Federal Government for the new proposal as recommended by the division engineer, including both a modified Millwood Reservoir without provision of water-supply storage and the six other reservoirs, including water-supply storage, as compared to the present-day cost of the original Millwood Reservoir.

Now, the difference between the two, which is quite large, is the amount that local interest would have to contribute for the water supply.

Senator MONRONEY. But the water supply would be a salable item, whether it was held in reserve by the Army engineers for resale or whether it was put up by the local community; is that not correct?

General ITSCHNER. It is contemplated that $55,781,000 of the cost of the project recommended by the Chief of Engineers, which includes provision of storage for water supply in Millwood as well as the six upstream reservoirs, would be returnable for the sale of water.

Senator KERR. From the sale of water?

General ITSCHNER. Yes, sir.

Senator KERR. That is what I thought was the figure that was in the Senator's mind in leading him to the conclusion that he announced.

Senator HRUSKA. In the writeup sheet there is nothing said about development of power. Is that something that is in the future? How does it come about that there is no reference here whatsoever to hydroelectric power in the writeup sheet we have before us?

Senator KERR. In the plans submitted by the engineers for modification, there was no provision for power, was there, General?

General ITSCHNER. No, sir. Power was considered. We did not recommend installation of power at any of the reservoirs.

Senator MONRONEY. We hope when the dam is authorized, penstocks can be built so later power can be installed because there is a vast volume of water that would be available for hydroelectric generation. I think there is some new temporary policy obtaining now——

Senator KERR. We hope it is temporary.

Senator MONRONEY (continuing). On full development of water resources.

Senator HRUSKA. Of course, the costs do not include cost of penstocks and all that?

Senator MONRONEY. I believe penstocks could be built at practically no additional cost.

Senator KERR. What about the cost of penstocks? They are not included in the figures you have given us, are they, General?

General ITSCHNER. No, sir.

Senator KERR. Of what magnitude would that item be if provided?

General ITSCHNER. We do not have any estimate of it available, sir. I think we could give you a rough estimate if we would be permitted to insert it in the record.

Senator KERR. All right. Please furnish that information for us.

(The information referred to is as follows:)

The approximate cost to install in the proposed Millwood and six upstream dams, penstocks adapted to possible future use in the development of hydroelectric power is as follows:

Millwood	$1,630,000	Gilham	$3,080,000
Pine Creek	1,645,000	Dierks	1,400,000
Lukfata	2,300,000		
Broken Bow	2,220,000	Total	14,775,000
De Queen	2,500,000		

As indicated, the foregoing estimates are approximate and may be subject to change depending upon the results of further investigations and studies which would be made during the detailed design stage prior to construction.

Senator MONRONEY. If the dam is built, it is not too great a cost.

Senator GORE. Did I understand you to say, General, you did not consider hydroelectric installations?

General ITSCHNER. No, sir; I meant to say we did consider and study the installation of hydroelectric power in all of these seven reservoirs, but we did not recommend the installation of power in any of them.

Senator HRUSKA. Is that a final decision? Is that the decision of the board of review?

General ITSCHNER. That is the decision of the Board of Engineers; yes, sir.

Senator GORE. What was the basis of your decision?

General ITSCHNER. Lack of economic justification, sir, at this time.

Senator GORE. Lack of need for it or lack of what?

General ITSCHNER. No, sir; lack of economic justification.

Senator KERR. What contribution to that inclusion did the present formula of the Bureau of the Budget have as compared with what it would have been under previous formulas?

General ITSCHNER. The present requirement that the value of taxes foregone be considered for each of these proposed projects did have an effect upon the recommendation. With the value of taxes foregone omitted from the analysas, the Mountain Fork project would be justified for power. The others would not, even without consideration of taxes foregone.

Senator GORE. What do you mean by "taxes foregone"?

General ITSCHNER. In analyzing a project for the inclusion of hydroelectric power, we are required by a directive of the Bureau of the Budget to consider the amount of taxes that an alternative privately constructed project would have to pay in making our economic analysis.

Senator KERR. And charge on your statement of assets and liabilities, that amount as a liability, economically speaking, with reference to the feasibility of the project?

General ITSCHNER. That is correct, sir.

Senator GORE. You are not prepared to defend that? Excuse me, I will not ask you that.

General ITSCHNER. That is an order to us, sir. It has been put into effect in the past few years.

Senator KERR. And, insofar as the study on the Mountain Fork project here, it is just as effective as though everyone considered it validly?

General ITSCHNER. I am not quite sure I understand.

Senator KERR. I am not asking you either to approve or disapprove. I am just asking you to state whether or not it is just as effective in the result of paying, as though everybody did approve it?

General ITSCHNER. Yes, sir; but only for Mountain Fork.

Senator KERR. I say with reference to Mountain Fork?

General ITSCHNER. Yes, sir.

Senator KERR. Are there any other questions?

Senator HRUSKA. One other question. Senator Monroney, is it your thought that it is only the cash contribution by the local interests that you object to or all contributions of any kind?

Senator MONRONEY. Well, no, I feel that to require the local people to bank the funds necessary to build in the hydroelectric storage and the reservoir storage for municipal water would be disadvantageous to the local people because it puts a burden on them if they cannot incorporate and float bonds and raise money to that extent. It would also deny the Government the chance to really make an excellent revenue over expenses out of banking this themselves to sell water and as to the development in the future of hydroelectric power.

Senator KERR. Further objection was to the requirement of the landowner in the land below the dam making the cash payment for the increase in the value.

Senator MONRONEY. I think that is indefensible. This is the first project, I believe, in the United States that they have tried to assess land accretion values for flood control.

Senator KERR. That is on reservoir flood control?

Senator MONRONEY. Reservoir flood control and since it was not assessed and not anticipated to be assessed below Millwood, then when you improve Millwood Dam with this modification, why should these other valleys that will be thus protected have to pay for the accretion in land values? It is an unheard of thing on reservoir protection up to this point.

We feel that this is not a new authorization, it is merely a modification of an existing one and that the same benefits that the property owners had on the big dry Millwood Reservoir, should be allowed on the 250,000 acres, I believe it is, that will receive protection as you move upstream to build a part of the dam.

Senator HRUSKA. You feel they ought not change the ground rules on you in the middle of the game?

Senator MONRONEY. If it was good below Millwood, it ought to be good above. This, I might say, is supported, I know, by the two Arkansas Senators, this general practice of moving upstream.

Senator KERR. In order that the committee might have further enlightenment on it, the provision of the present flood-control law is that before a project is built in a State, even though endorsed, it must have acquiescence of the State government in the State. And the State governments of both Oklahoma and Arkansas have continually opposed the construction of Millwood, as authorized because of the great damage it would do to the large area and because of the fact that

better results can be obtained by modification of the authorization in these upstream dams and valley land between them and Millwood Dam protected from floods and most of the present contemplated reservoir area saved from floods.

Timber, by the way, Senator, in this area, there is nowhere else that I know of in our part of the country that the timber is handled on the basis of annually harvesting a crop of timber and conservation and reforestation is practiced in such a way that actually, the amount of timber being cut each year is increasing because the land is being taken care of and the mature trees being cut and the area reforested on a basis consistent with the best conservation practices. It is not like many areas where the timber has been stripped off and the land denuded. Actually, it is better timber area now than it was 40 years ago when we began to cut timber in that country and some of the very finest part of it is in the reservoir area of the presently authorized Millwood project.

Any further questions?

Senator HRUSKA. I have some discussion on that local contribution, which I do not know that it would serve any purpose to follow through at this time. Maybe we can reserve that for our executive session, but in brief, it is simply this. After all, here we have a policy in our small reclamaton projects law. We have a policy in the watershed law, which we are presently processing of requiring local interest to supply certain things. Now, up until the present time, under the watershed law, they have even participated in the construction of the structure itself. Now, moving over, that has been eliminated in the amended act.

Therefore, in order to get some uniformity in the picture, that part of contributing to the structure itself is being dropped. However, here we now have an additional step by saying that inasmuch as there are some projects on which there is no contribution of local right-of-way, easements, and maintenance, and so on, therefore, this should not be done in this case, and it is strictly a flood-control project as of the present writing.

If we are going to follow that line of reasoning, there will be every pressure brought to bear and there will be every justification for saying as to the watershed and the small reclamation projects, it is not necessary in those cases.

Senator MONRONEY. Do you mean small reclamation for upstream?

Senator HRUSKA. Both.

Senator KERR. I think it might throw some light if General Itschner would tell us the size of these reservoirs.

Senator MONRONEY. These are huge.

Senator KERR. These are not 2,500 acre-feet reservoirs.

Senator MONRONEY. Those are farm dams. These are interstate flood-control dams.

Senator KERR. Fourteen million acre-feet, 12 billion gallons of water a day going out of this area down that river, Senator.

General, what are the size of these projects proposed in Oklahoma on the tributaries of the Little River?

General ITSCHNER. They vary. One of them, Pine Creek, is 455,000 acre-feet; Lukfata 207,000, and Broken Bow 534,000 acre-feet. The capacities shown include flood control, water supply, and sediment reserve.

Senator HRUSKA. Perhaps that is the line of demarcation. I was not aware of the size of the puddles of water we were talking about.

Senator MONRONEY. These have hydro and municipal water supply and even attract Dallas and Fort Worth to come up there and get it, so this is, from the standpoint of availability of water for two States, some in Texas and some in Oklahoma, that are suffering and have no other water supply, that these come way beyond the range of the upstream flood-control program which I am a co-author of and have been pushing for some 15 years.

Senator HRUSKA. I am glad I asked the question now to get this conclusive result. I will not have to bring it up in executive session.

Senator MONRONEY. Much of the cost on small reservoirs on upstream flood control under Public Law 566, proposed amendments, goes into the land treatments, you see, to control runoff, and all that. Only less than 10 percent was previously being demanded for the water structure itself from local contributions.

Senator KERR. Thank you very much, Senator.

MILLWOOD RESERVOIR, ARK., AND ALTERNATE RESERVOIR SYSTEM, OKLAHOMA AND ARKANSAS, LITTLE RIVER, TRIBUTARY OF RED RIVER

Location.—Little River rises in southeast Oklahoma and flows into Red River near Fulton, Ark., in the southwestern part of that State.

Report authorized by.—Flood Control Act approved May 17, 1950.

Existing project.—Denison Dam (Lake Texoma); project for flood control on Red River below Denison (Boswell, Hugo, Millwood, Texarkana, Ferralls Bridge, Mooringsport, Black Bayou, Wallace Lake, Bodeau, and Cooper Reservoirs; levees and bank stabilization on Red River below Denison Dam; and local protection projects); and project for navigation, 9-foot channel from Mississippi River to Shreveport.

Plan of recommended improvement.—That the authorized Red River below Denison Dam project be modified by the reduction of the flood-control storage capacity of the authorized Millwood Reservoir on Little River by about 25 percent and by the addition of 6 reservoirs for flood control and water supply in the Little River Basin above Millwood Reservoir was further modified to provide an additional 150,000 acre-feet for water supply.

Local cooperation.—Local interests will obtain all necessary water rights and contract to pay the costs allocated to water supply within the economic life of the project, but in no event to exceed 50 years after project is first available for the storage of water for any purpose; and provided further that, for the six upstream reservoirs, local interests give assurances satisfactory to the Secretary of the Army that they will for each reservoir: (*a*) obtain all necessary water rights; (*b*) prior to the construction agree to pay, beginning when space is used for water supply and not later than 15 years from the time storage is available for any purpose, the costs allocated to water supply, such costs to be repaid within the economic life of the project but in no event more than 50 years after project is first available for the storage of water for any purpose; (*c*) contribute in cash toward the flood control first costs an amount varying for each reservoir and averaging 3.9 percent, as shown in the report of the district engineer, the total for the 6 reservoirs being presently estimated at $2,281,000; and provided further that, pending assignment of space to actual use for water supply, the total storage in any of the 6 upstream reservoirs may be used for flood control.

Estimated cost:

Total cost of modified Millwood and upstream reservoirs	$103,035,000
Less cash contribution by local interests	−2,281,000
Total Federal cost of construction at this time	[1] 100,754,000
Less total cost of presently authorized Millwood Reservoir	−49,800,000
Additional Federal authorization required	50,954,000

[1] Of the amount of $100,754,000, $55,781,000 ultimately will be repaid by local interests for water supply, leaving a net Federal cost of $44,973,000.

Project economics

	Current
Annual charges	$4,336,700
Annual benefits	$6,369,300
Benefit-cost ratio	1.47

RED RIVER BASIN, MILLWOOD RESERVOIR

Senator KERR. Mr. Weinkauff?

Mr. WEINKAUFF. This report was authorized by the Flood Control Act of 1950 and concerns Millwood Reservoir and the development of alternate sites. Millwood Reservoir was authorized by the Flood Control Act of 1946. It is on Little River, which enters Red River just above Fulton, Ark., and about 261 miles below Denison Dam.

The lands in Little River Basin are used primarily for timber, crop, and livestock production. The lands——

Senator KERR. The Little River Basin, would you point that out on the map?

Mr. WEINKAUFF. Yes, sir.

Senator KERR. Could you tell us the amount of flowage out of Little River into the Red River?

Mr. WEINKAUFF. I could give you that. I don't have it readily available.

(The information requested is as follows:)

The mean annual runoff of Little River into Red River is estimated at approximately 4,700,000 acre-feet.

Mr. WEINKAUFF. I might point out that floods have been a problem on both Little River and Red River for a period of many years. The average annual damage in the Little River Basin amounted to $297,000 and in the Red River Basin from the mouth of the Little River to the upstream limits of the Red-Ouachita backwater area about $2,522,000.

The authorized Millwood Reservoir has a capacity of 2,208,000 acre-feet of flood-control storage. The construction of Millwood has not been started as yet. The current investigation considered various plans and combinations of reservoirs. There were some 30 reservoirs considered initially. That was broken down into about 11 which were considered in detail.

As I mentioned before, the problem was to try to develop alternative sites for Millwood Reservoir.

I might point out that Millwood Reservoir is a key in the overall flood-control plan for the Red River Basin. The final processing of this report has not as yet been completed. We do not have the official comments of the Bureau of the Budget, the State agencies, and other Federal agencies.

However, the report has been favorably considered by the Board of Engineers for Rivers and Harbors, and has been considered by the Chief of Engineers.

Senator KERR. As I understand it, it has been approved by both?

Mr. WEINKAUFF. Yes, sir. The Chief of Engineers recommends modification of the authorized Millwood Dam and Reservoir by reduction of the flood-control capacity by 25 percent, or 542,000 acre-feet, and the addition of 150,000 acre-feet for water supply, leaving a net reduction of 392,000 acre-feet.

He also recommends the construction of 6 upstream reservoirs with 1,324,600 acre-feet of flood-control storage, and 241,300 acre-feet for

water supply, subject to certain conditions including conditions of local cooperation, for the modified Millwood and for the 6 upstream reservoirs.

I might point out the names of the reservoirs. The recommended reservoirs are Dierks, Gillham, De Queen, Broken Bow, Lukfata, and Pine Creek.

Senator KERR. Could you give us the respective capacities as recommended?

Mr. WEINKAUFF. Yes, sir. The flood-control storage capacity for Pine Creek is 378,000 acre-feet.

Senator KERR. Point that out for us.

Mr. WEINKAUFF. Yes sir.

Senator KERR. And the water supply?

Mr. WEINKAUFF. The water supply for Pine Creek is 70,000 acre-feet. There is an allowance of 7,000 acre-feet for sedimentation and reserve.

Lukfata, 172,000 acre-feet for flood control, 31,000 acre-feet for water supply, and sedimentation reserve of 4,000 acre-feet.

Broken Bow, 443,000 acre-feet for flood-control storage, 81,000 acre-feet of water supply, and 10,000 acre-feet for sedimentation reserve.

De Queen, 101,000 acre-feet for flood control, 18,000 acre-feet for water supply, and 2,000 acre-feet for sedimentation reserve.

Gillham, 164,600 acre-feet for flood control, 29,200 acre-feet for water supply, and 4,200 acre-feet for sedimentation reserve.

Dierks, 66,000 acre-feet for flood control, 12,100 acre-feet for water supply, and 1,900 acre-feet for sedimentation reserve.

Senator KERR. Are you familiar with the report of the Arkansas, White and Red River Study Commission?

Mr. WEINKAUFF. Partially.

Senator KERR. Are you familiar with their recommendation for 2 reservoirs on the Mountain Fork instead of 1?

Mr. WEINKAUFF. Yes. As a matter of fact, in our report we considered the two reservoirs on the Mountain Fork.

Senator KERR. What would be the capacity of the two as contrasted to the capacity of the one you have recommended?

Mr. WEINKAUFF. The two reservoirs considered on the Mountain Fork were the Sherwood Reservoir and Broken Bow Reservoir. The storage in acre-feet for Sherwood Reservoir for flood control is 237,000 acre-feet, and that for power, conservation and sedimentation reserve, 496,000 acre-feet, giving a total for Sherwood of 733,000 acre-feet.

Broken Bow Reservoir, the flood-control storage was 232,000 acre-feet, and that proposed for power, conservation and sedimentation, 661,000 acre-feet, or a total for Broken Bow of 893,000 acre-feet.

Senator KERR. What is the annual water runoff or flowage there, and could you interpret that in terms of what would be the experience with reference to filling these reservoirs?

Mr. WEINKAUFF. I can give you the mean annual runoff at certain stations that we have.

At De Queen, Ark., on the Rolling Fork River, the mean annual runoff in acre-feet is 259,555.

Senator KERR. Which is that?

Mr. WEINKAUFF. Rolling Fork River, at De Queen, Ark.

Then on the Saline River, at Dierks, the mean annual runoff is 147,589 acre-feet.

Senator KERR. I am interested in Broken Bow.

Mr. WEINKAUFF. Mountain Fork at Eagletown, Okla., the mean annual runoff is 1,053,445 acre-feet.

Senator KERR. And that would be the amount of mean annual runoff whether there were 1 reservoir or 2?

Mr. WEINKAUFF. Yes, sir. That is the natural runoff there.

Senator KERR. What is it with reference to the other two on Little River in Oklahoma?

Mr. WEINKAUFF. We have figures for the main Little River at Horatio, Ark.

Senator KERR. Is it below the confluence with the main stream in Arkansas, or above it?

General ITSCHNER. Just above it.

Senator KERR. Then it would approximate the combined runoff of three reservoir areas?

General ITSCHNER. Plus any additional flow that is received below the reservoirs involved.

Mr. WEINKAUFF. The figure at Horatio, is 2,937,000 acre-feet.

Senator KERR. What would you estimate as to the amount of that that would pass through the gates of these three reservoirs?

Mr. WEINKAUFF. This figure is the runoff figure. It isn't precipitation. Precipitation would be about double that. This is the amount that would pass through——

Senator KERR. I contemplate the possibility of some of it being added to the stream below the sites of these three reservoirs. You say that on Broken Bow is 1,053,000. What are the other two projects?

Mr. WEINKAUFF. Lukfata and Pine Creek.

Senator KERR. Do you have it for them?

Mr. WEINKAUFF. Not separately.

Senator KERR. Would there be any way, General, of getting a rough estimate of what part of that 2,937,000 acre-feet would be from these 3 reservoirs?

General ITSCHNER. Yes, sir. I am sure I can get it. We believe about 80 percent of the amount given would come from those reservoirs.

Senator KERR. In other words, it would be somewhere near 80 percent of the 2,937,000 acre-feet?

General ITSCHNER. Yes, sir; somewhere in that vicinity.

(The information requested is as follows:)

Of the mean annual runoff of Little River near Horatio, Ark., amounting to 2,937,000 acre-feet, it is estimated that about 61 percent or about 1,800,000 acre-feet would originate above the Pine Creek, Lukfata, and Broken Bow dam sites.

Mr. WEINKAUFF. I will continue with the recommendations of the Chief of Engineers.

Included in the conditions were that Lukfata which has a benefit-cost ratio of 0.94; less than unity—the Chief of Engineers conditions his recommendation on the basis that Lukfata be reanalyzed prior to construction and is then found justified.

Local interests are to pay for the cost of water supply and in addition are to provide a cash contribution of $2,281,000.

Senator KERR. Is that with reference to the four reservoirs?

Mr. WEINKAUFF. If you want me to I might go into detail on that. The cash contribution is for the land enhancement benefits for these six reservoirs upstream of Millwood.

Senator KERR. What is the recommendation for the local contribution of land enhancement below Millwood?

Mr. WEINKAUFF. There is no recommendation for land enhancement contribution below Millwood, either for Millwood or for the six reservoirs. In other words, the six reservoirs also produce benefits downstream. However, it was felt that Millwood was an authorized project, and prior to the policy of land enhancement. Consequently no charge was made against local interests for land enhancement downstream of the original Millwood Reservior.

Senator HRUSKA. Would the relative difficulty of identifying benefits below Millwood also be a factor in that situation?

Mr. WEINKAUFF. To some extent. Of course, as you go downstream you would spread out further with reference to benefits.

Senator HRUSKA. You would have the intervention there of the Red River also which complicates the situation?

Mr. WEINKAUFF. Yes, sir; that is true.

General ITSCHNER. Actually, that was not a factor in our decision.

Senator HRUSKA. What was the greatest factor? The history of it?

General ITSCHNER. The legislative history of Millwood Dam which had already been autorized without any contribution for land-enhancement benefits.

Senator KERR. It would be just as easy to determine the land enhancement below Millwood as it would be to determine the land enhancement below the other projects.

Mr. WEINKAUFF. We have done that.

Senator KERR. It would be just as easy?

Mr. WEINKAUFF. Yes, sir.

Senator HRUSKA. Identifiable benefits?

Mr. WEINKAUFF. Yes, sir, they have been identified and evaluated on the same basis as the benefits were evaluated for Millwood and also for these downstream of Millwood.

General ITSCHNER. I might clarify a little, if I may. If Millwood had not been authorized previously, we would require at this time a local contribution for land-enhancement benefits downstream from Millwood in spite of the difficulty of computing these benefits accurately.

Senator HRUSKA. How far would that computation extend territorially?

General ITSCHNER. It would extend on down as far as there are any land-enhancement benefits. It would go down the Little River to its confluence with the Red River, and from that point on down a distance, the exact distance I am not able to say, but quite a distance down the Red River.

Senator KERR. The land-enhancement factor included in the recommendation at this time, as contrasted to the absence of it at Millwood, is based purely on the change in policy of the executive department of the Government, isn't it?

General ITSCHNER. That is right.

Mr. WEINKAUFF. With reference to costs, the estimated first cost is $45,680,000 for the modified Millwood.

Senator KERR. That is for the six dams?

Mr. WEINKAUFF. No, sir; just the modified Millwood.

Senator KERR. Modified Millwood would estimate $45 million?

Mr. WEINKAUFF. Yes, sir. That includes 150,000 acre-feet for water supply in Millwood. That is $45,680,000. And for the 6 upstream reservoirs the estimated first cost is $57,355,000, or a total of $103,035,000. Of that $103 million, $2,281,000 would be a cash contribution by local interests, and $55,781,000 would be eventually reimbursable for water supply, leaving a net Federal cost of $44,973,000.

Senator KERR. For the seven reservoirs?

Mr. WEINKAUFF. Yes, sir.

Senator KERR. So that your estimate is that in the 50-year period the sale of water from the 6 upstream reservoirs would pay for the 6 upstream reservoirs?

Mr. WEINKAUFF. It would pay for the amount allocated to water supply.

Senator KERR. Your figures on the reimbursement included your calculation of what would be received for the water supply in Millwood itself?

Mr. WEINKAUFF. Yes, sir. The annual charges for the 6 reservoirs plus Millwood are estimated at $4,336,700 and the annual benefits at $6,369,300, giving a benefit-cost ratio of 1.47 for the total plan of the reservoirs.

Senator KERR. Can you give us the figures which you found with reference to power cost and reimbursement on the Mountain Fork, contemplating the construction of both reservoirs on Mountain Fork which would be Sherwood and Broken Bow?

Mr. WEINKAUFF. Yes, sir. I have the figures for the two together, operated as a system.

Sherwood and Broken Bow Reservoirs, the estimated construction cost of those 2 is $65 million——

Senator KERR. Is that the power cost?

Mr. WEINKAUFF. No, sir.

Senator KERR. What I am talking about would be the addition of power cost. You can break it down from the $65 million.

Mr. WEINKAUFF. The total construction cost for both is $65,065,000, and the annual charges are $4,270,100.

Senator KERR. And annual benefits?

Mr. WEINKAUFF. I might give you the benefits to complete the picture on the two together. The flood-control benefits for that plan are $292,600, and the power benefits are $2,752,000, and the water-supply benefits are $400,000, giving a total of $3,444,600.

Senator KERR. The Arkansas-Red-White report in which the engineers participated I believe gave the annual benefit on Sherwood and Broken Bow as $4,214,000 and annual cost at $2,870,000.

Mr. WEINKAUFF. I don't know what price basis.

Senator KERR. It was published in 1955.

Mr. BRENNAN. Mr. Chairman, may I——

Senator KERR. Enlighten us? By all means.

Mr. BRENNAN. Make a statement, sir. Part of this is from memory. When the Arkansas-White-Red Interagency Committee was formed as a result of the 1950 act, one of the problems to be solved was the matter of price levels. Since the study was to go on for what was originally contemplated as 2 years and later turned out to be somewhat longer, a price base was selected to be used by all the agencies

so that in general there wouldn't be a constant changing in costs. That price basis was back in the early 1950's. I am not sure when.

Senator KERR. Who was the head of the interagency committee?

Mr. BRENNAN. The Corps of Engineers was the chairman agency. The division enginer of the southwest division was the chairman. But that was one of the agreements reached and it was necessitated by the fact that all agencies have necessarily to work on the same general price basis, and it was to avoid changes.

I believe one of the reasons for the difference between the costs and the benefits and the benefit-cost ratios is due to that. The other reason I believe is due to the "taxes foregone" element which you are familiar with.

Senator KERR. I am trying to get familiar. Suppose you explain that to the committee.

Mr. BRENNAN. The "taxes forgone," sir, is a means or device for comparing projects on the same economic basis. This procedure is necessary because some elements of cost such as interest, taxes, and so forth, are treated differently in projects for the Federal Government than in projects for private utilities.

Senator KERR. What is the origin of the application of that principle?

Mr. BRENNAN. The origin, sir, I believe goes back to the benefit-cost subcommittee of the Federal Interagency River Basin Committee, made up of the main water resource agencies in the Federal Government.

Senator KERR. When was it promulgated?

Mr. BRENNAN. The results of their deliberations, sir, were made available and printed in booklet form in May of 1950. One of the principles recognized was the necessity of applying the same interest rates, taxes, and other elements of operating costs in projects which are to be compared on the same economic basis.

Senator KERR. Then that same principle was applied in your deliberations in the Arkansas-White-Red River report, werent' they?

Mr. BRENNAN. I am somewhat uncertain, sir. As I said, I am speaking from memory. I believe that the time element was so close that I dont' believe that principle was adopted.

Senator KERR. I would like to have you check that because I think it was.

Mr. BRENNAN. I can get that information within 10 or 15 minutes.

(The information requested is as follows:)

The difference in the analysis of the Broken Bow and Sherwood Reservoirs as contained in the Arkansas-White-Red report and that in the current report on Millwood Reservoir modification and the six upstream reservoirs is caused principally by an increase in the estimated cost of the physically identical project improvements and a material reduction in the evaluated benefits from water supply. The increase in the estimated cost of the overall project as shown in the current report occurred through use of current prices rather than projected prices of the future as used for the estimate contained in the Arkansas-White-Red report. With respect to water supply, certain values were used for planning purposes in the Arkansas-Wh'te-Red report, subject to the understanding that alternative costs would be used whenever possible. The current report on Millwood and the six upstream reservoirs applied this principle of alternative costs in evaluating the benefits, thereby resulting in a substantial reduction in these benefits. "Taxes foregone" are considered as project costs in both analyses.

Senator GORE. May I ask a question?

Senator KERR. Yes. First let me say: As I understand this principle it means that in calculating the benefits you reduce the total benefits by an amount equal to what a private owner would pay in taxes if the project were privately owned.

Mr. BRENNAN. That is the effect of it. Actually it is added to the cost side.

Senator KERR. And if the power were sold to private purchasers who are also taxpayers?

Mr. BRENNAN. May I say on that, sir, first the actual amount of "taxes foregone" are added to the cost side usually. But the effect is the same.

Senator KERR. If it is added to the cost side or if the benefits are reduced the result is the same.

Mr. BRENNAN. The result is the same. Secondly, it has no relation to the matter of actual payment or revenues. It is purely a means of analyzing the economic——

Senator KERR. Economic costs and benefit ratios.

Mr. BRENNAN. That is correct, sir.

Senator KERR. And if by the addition of that amount to the econmic costs or if by reduction of the benefits by that amount a cost-ratio benefit of less than 1 to 1 is arrived at, then the project is considered as being uneconomically feasible.

Mr. BRENNAN. That is correct.

Senator HRUSKA. Is interest included as a cost?

Mr. BRENNAN. Yes, sir.

Senator GORE. May I ask a question?

Senator KERR. Senator Gore?

Senator GORE. Do you calculate the additional tax revenue that would inure to the Government as a result of the development and growth of a river valley?

Mr. BRENNAN. No, sir, that is not an element that enters into the economic computations.

Senator GORE. So when you say it is purely a means of doing thus and so, what you really mean is that it is purely a means of preventing public hydroelectric development?

Mr. BRENNAN. No, sir.

Senator KERR. That is not the purpose that you have in mind, but an objective observer might arrive at the conclusion that that is the result reached.

Senator GORE. I wouldn't accuse this gentleman of having it in mind but I think the perpetrators of the policy had it in mind.

Senator KERR. I do, too, but I didn't want to embarass this good witness.

Senator GORE. I excuse him.

Senator KERR. Any further questions?

Senator GORE. No, sir.

Senator KERR. Senator Hruska?

Senator HRUSKA. No, sir. I don't believe this is the place to engage in philosophical discussion.

Senator GORE. I am sure it is not philosophic as far as I am concerned. It is rather practical.

Senator KERR. I might say that yesterday I placed into the record the results of a study of the Arkansas-White-Red Rivers. I might

say that I am deeply grateful to the Corps of Engineers for their reappraisal of this. I am aware of the fact that any differential in their conclusions today and those of the Arkansas, White, and Red River report in which they participated and in which they very largely guided, is the result of elements beyond their control.

I did want the information in the record and in the minds of the committee.

Senator HRUSKA. May I ask if the Chief of Engineers' report has been completed on this project as modified.

Mr. WEINKAUFF. The recommendation I read to you, was the recommendation of the Chief of Engineers.

Senator HRUSKA. My question is whether the report is completed.

General ITSCHNER. It has been completed.

Senator HRUSKA. It has been?

Mr. WEINKAUFF. Yes, sir; but it has not been processed further by the Bureau of the Budget.

Senator HRUSKA. And the States and other agencies involved?

Mr. WEINKAUFF. It has not been sent to the States and other agencies.

There was a contact at our field office with the States, and so forth, but we do send it to the State agencies.

Senator HRUSKA. For their comments pursuant to the rules that pertain in most situations?

Mr. WEINKAUFF. Yes, sir.

Senator KERR. One further question.

In the event that the committee and the Congress see fit to modify the authorization of this project, it would be entirely consistent with its orderly development, and consistent with the sound policies of enabling both the Congress and the Engineers to know how the progress made on it would effectuate the general and ultimate result in relationship to actuality and forecasting of estimates for the upstream dams to be built first, so that their effect might be known and opinions confirmed as to the necessities, and also in order to be able then to have the opportunity, if it were needed, to reevaluate the necessities for just what they would be with reference to the big project downstream.

Senator HRUSKA. At Millwood?

Mr. WEINKAUFF. I might point out that the matter was considered by the Chief of Engineers and he recommends that Millwood be constructed first because of its key position as a flood-control reservoir.

Senator KERR. Not because of the success of this revised project?

General ITSCHNER. No, sir. There is no real engineering reason for building any one of them before the other. The only reason why the Chief of Engineers recommends that Millwood be built first is because it does have a larger capacity.

Senator KERR. And is a key project on the Red River.

General ITSCHNER. Yes, sir.

Senator KERR. But I believe the engineers are familiar with the attitudes of the States of Oklahoma and Arkansas, which thus far have at least been a factor in preventing the construction of Millwood. If it were found, or if it were shown that those attitudes would remain the same with reference to the building of Millwood first, and would be entirely harmonized and resolved if the upstream projects were

built first, then there is no engineering reason why that shouldn't be done?

General ITSCHNER. That is correct, Mr. Chairman.

Senator GORE. General Itschner, since the Corps of Engineers has been required to charge up as a cost against this project tax revenues which may result in the event of private development, you would have no objection, I take it, if the committee in its own wisdom and judgment undertakes to estimate the benefits that would accrue from development by whatever means, and consider this valley project as an integrated whole?

General ITSCHNER. I think the committee might desire to estimate the benefits without the taxes. Actually, as has been brought out earlier, the value of "taxes foregone" is not included in the allocation of costs for determining power rates. It is only used in an economic evaluation of the project.

Senator GORE. You see nothing economically unsound about considering the accretion in tax revenues from development of the resources of a valley, being greater productivity of the land, employment of the people, their per capita income, and industrial output? Do you see anything wrong with the committee considering that?

General ITSCHNER. No, sir; I don't; except that I think from a purely economic standpoint the committee would want to also consider the added cost of government in those areas due to the development, and take the net value of the taxes rather than the gross.

Senator GORE. You would concede that it would be unfair and an unbalanced judgment to charge up to the project a loss or a possible loss in tax revenue on the one hand, and give no consideration to the possible increase of tax revenue on the other?

General ITSCHNER. I think that consideration might be given to a balancing of the net tax revenues and losses. I think you have to take into account that taxes, of course, are assessed to take care of the costs of government, and there would be additional costs of government.

Senator GORE. Thank you very much. I just wanted to make it plain that I think this foregone policy ought to be foregone and forewent and dumped immediately.

Senator HRUSKA. On the other hand, localities outside of specially favored localities like that which will be called upon to pay some of the bill which is rendered hereby, might also consider the foregone thing might remain and might be applied, inasmuch as they will not receive any direct benefit from it.

Senator KERR. I think the point made by the Senator from Tennessee is a very worthy one for consideration, and that is that not only the area itself and the Government itself but the entire Nation itself should make its decision and evaluate the project on the net gain or loss in the Nation's taxes.

From that standpoint, and the net gain or loss in local taxes from that standpoint.

I believe the Corps of Engineers did contend that the flood-control provisions be provided in the upstream dams before the inclusion of the municipal water in Millwood.

Mr. WEINKAUFF. Yes, sir; the flood-control feature in the upstream dams is one of the prime reasons for the upstream dams. I might read the actual recommendation.

Senator KERR. We will put it in the record. It won't be necessary.
(The recommendation referred to is as follows:)

9. I note that in connection with the 6 reservoirs upstream from Millwood, 1, Lukfata, has a benefit-cost ratio less than unity (0.94 to 1). I believe that the principle of individual project justification should be adhered to and that this reservoir should not be constructed unless it is economically justified. However, in view of the fact that the benefit-cost ratio is only slightly submarginal, I am including a recommendation for its authorization at this time, because it is a needed unit in the overall comprehensive plan. However, my recommendation is qualified by the proviso that a reexamination of the economics of the project be undertaken prior to construction and that the project not be constructed unless the benefit-cost ratio is favorable at that time.

10. After due consideration of these reports, I concur in the views of the Board except as indicated in the preceding paragraph and accordingly recommend modification of the existing flood-control project for Red River below Denison Dam by reducing the flood-control storage in Millwood Reservoir on Little River about 25 percent and by adding 6 reservoirs upstream from Willwood Reservoir for flood control and water supply, generally in accordance with the plan of the district engineer, provided that Lukfata Reservoir is found to be economically justified upon reanalysis prior to construction, and by adding 150,000 acre-feet of storage to Millwood Reservoir for possible future water-supply uses, as proposed by the Board; with such modifications thereof as in the discretion of the Chief of Engineers may be advisable; at an estimated cost to the United States of $50,954,000 initially for construction and $51,000 annually for maintenance and operation in addition to the presently estimated comparable costs of the authorized Millwood Reservoir; provided that construction of Millwood Reservoir will be started prior to the start of construction on any of the 6 upstream reservoirs; that water-supply capacity in Millwood Reservoir will be used for flood control at least until flood-control capacity equivalent in effectiveness is available in any of the 6 upstream reservoirs; that such flood-cotrol capacity continue to be used for flood control until assigned to water conservation storage; and that, prior to assignment of capacity to actual use for water supply in Millwood Reservoir, local interests will obtain all necessary water rights and contract to pay the costs allocated to water supply within the economic life of the project, but in no event to exceed 50 years after project is first available for the storage of water purpose: *And provided further*, That, for the 6 upstream reservoirs, local interests give assurances satisfactory to the Secretary of the Army that they will, for each reservoir: (*a*) obtain all necessary water rights; (*b*) prior to the construction agree to pay, beginning when space is used for water supply and not later than 15 years from the time storage is available for any purpose, the costs allocated to water supply, such costs to be repaid within the economic life of the project but in no event to be more than 50 years after project is first available for the storage of water for any purpose; (*c*) contribute in cash toward the flood-control first costs an amount varying for each reservoir and averaging 3.9 percent, as shown in the report of the district engineer, the total for the 6 reservoirs being presently estimated at $2,281,000: *And provided further*, That, pending assignment of space to actual use for water supply, the total storage in any of the 6 upstream reservoirs may be used for flood control.

MILLWOOD DAM, LITTLE RIVER BASIN, ARK.

Senator LONG. I have a brief statement urging this committee to act upon the Millwood Dam problem. The chairman is well familiar with Millwood. I won't burden him on that. I believe he is as complete an expert on that as anyone in the country. I ask that the statement be included in the record.

Senator KERR. That will be done.
(The statement referred to above is as follows:)

STATEMENT OF SENATOR RUSSELL B. LONG, OF LOUISIANA

It is urgently recommended that action be taken by this committee to secure the authorizations that are necessary to assure early construction of Millwood Dam. This action is necessary to protect the lands of the State of Louisiana from overflow of Red River as a result of flooding on Little River.

It is considered that the Little River Reservoir is one of the most important in the entire Red River system and its early completion is a necessary adjunct of the comprehensive plan for flood control on Red River.

A recent report of the Board of Engineers on Rivers and Harbors recommends that the Millwood Dam be reduced in flood-control storage by 25 percent of the original authorized project, and that 6 upstream dams be constructed—3 in the State of Arkansas and 3 in the State of Oklahoma. This report also recommends that, in order to meet the demand of municipal and industrial water, 150,000 acre-feet of water be added to Millwood Dam. This water would be used as additional flood-control storage until its equivalent was available in one or more of the upstream dams, then, after that time, it would be made the subject of purchase by downstream interests for a municipal and industrial water supply.

It is recommended that the necessary authorization be secured to permit the concurrent construction of Millwood and one or more of the upstream dams, commencing with the next fiscal year.

SHREVEPORT, LA., *July 18, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Subcommittee on Public Works,
Senate Office Building, Washington, D. C.:

I am advised that hearings were held yesterday by your committee regarding Millwood Reservoir and alternate reservoirs on Little River in Arkansas and Oklahoma. We would like for the record to show that we are in concurrence in general with the Chief of Engineers' report which approves the modification of Millwood and the addition of six upstream reservoirs for flood control and related water use benefits. We are, however, opposed to any assessment to either upstream or downstream interests for flood control, and believe that costs assessed to local interests for water-supply storage in the Millwood Reservoir and the six upstream reservoirs should be based on incremental costs with provisions for long-term repayment. We also concur in that one or more of the upstream reservoirs could be constructed with the Millwood Reservoir in order to provide protection for the upstream interests and at the same time provide vitally needed flood control for the States of Arkansas and Louisiana.

L. R. MATTHIAS,
Executive Vice President, Red River Valley Association.

Senator KERR. Senator Neuberger, you have some witnesses here?

Senator NEUBERGER. I just have a very brief statement for myself with reference to the Yaquina Bay project in Oregon.

Senator KERR. Go ahead.

STATEMENT OF HON. RICHARD L. NEUBERGER, A UNITED STATES SENATOR FROM THE STATE OF OREGON

Senator NEUBERGER. Yaquina is of Indian origin.

Senator KERR. I am reconciled to that. Is there legislation pending to authorize the project, Senator?

Senator NEUBERGER. I am appearing here today, Mr. Chairman, on behalf of Senator Morse and myself to urge its inclusion in the omnibus bill which this committee is considering, and which I presume presently will come from the House.

Senator KERR. Is it in the House bill?

Senator NEUBERGER. No; it is not in the House bill. The reason I believe it is not in the House bill is because it was only as recent as June 19, I believe, the Board of Engineers for Rivers and Harbors approved the modified project.

What it is, it changes the depth of the very great potential harbor, Yaquina Bay on the Oregon seacoast, and will deepen the navigation channels and turning basins by various depths from 8 to 14 feet beyond the existing project.

I have a letter here which I have sent to the chairman of the committee, just very brief, outlining the situation. The proposal was considered by the Board of Engineers, June of this year, I believe, and they have approved the modified project.

This proposal has been recommended in a report of the Board of Engineers for Rivers and Harbors with the concurrence of the Acting Chief of Engineers and this report I have with me, and will make it available to the committee.

The estimated total cost will be spread over a number of years and is $19,800,000. The Board's report states that the benefit-cost ratio of the recommended project modification is 1.43.

You may recall that Gen. E. C. Itschner testified yesterday morning that this project might well be included in the omnibus bill this year. I was very much interested—I did not get all the names of your constituents—I think it was a Mr. Powell, if I am not mistaken, who was here in behalf of the Millwood Reservoir project and he talked about the possibilities of a paper plant with the power and additional water supply which would be made available by the Millwood project.

It may be just coincidence, but with the deepening of harbor and Yaquina Bay, a very important lumber company has in mind to ship to that area, from Alaska, pulp which will be mixed with local pulp to be used in the manufacture of paper and pulp board. It will be a very extensive industry and the annual tonnage inbound to the Yaquina Bay in deep-draft vessels from Alaska will be nearly 184,000 tons of Alaskan pulp.

A great harbor, Mr. Chairman, as you know, is an asset to a country from the standpoint of commerce, industry, trade, national defense, and many other purposes. The Yaquina Bay is one of the great potential harbors on the entire Pacific coast.

For the sum of a little over $19 million, or to be exact, $19,800,000, spread over a number of years, as the Appropriations Committee sees fit, this can be made a truly great harbor.

It is in an area, Mr. Chairman, of vast timber resources. Gradually in the Pacific Northwest, the lumber industry has moved southward through the State of Washington into southwestern Oregon. I have at home an Encyclopedia Brittanica for 1940 which lists Washington as the leading lumber-producing State. Now as we sit here, Washington produces only a little more than half as much lumber as Oregon. In that short time, the lumber industry has moved to a great degree out of Washington into the area in which the Yaquina Bay is one of the great harbor outlets and actually, there are only two really great potential salt-water harbors for the outlet of this vast lumber industry. One is Coos Bay and one is Yaquina Bay. There are smaller harbors elsewhere along the Oregon coast, one at the mouth of the Rogue River where there is a very famous fishing stream, as you know, and some on which the engineers are working, but this harbor will tap one of the really great timber areas left in our country.

Senator HRUSKA. Is it developed at all at the present time?

Senator NEUBERGER. Oh, yes; it is definitely developed at the present time as a barbor, but it is not deep enough now, Senator Hruska, for the oceangoing and deep-draft vessels that would have to come in and take lumber for the countries of the world and to bring the pulp from Alaska.

At the present time, if I am not mistaken, the harbor depth, I think is around—General Itschner, what is the existing harbor depth at Yaquina Bay?

General ITSCHNER. I believe it is 18 to 22 feet.

Senator NEUBERGER. And modification would be in various places from 30 to 40 feet.

General ITSCHNER. It would be 30 feet inside.

Senator NEUBERGER. And 40 feet at the bar. The project within the area is absolutely noncontroversial. There is no objection from any source whatsoever.

YAQUINA BAY AND HARBOR, OREG.

(Report of Board of Engineers for Rivers and Harbors, June 19, 1956)

Location: Yaquina Bay is a coastal estuary at the mouth of Yaquina River. The bay entrance is about 113 miles south of the mouth of Columbia River and 87 miles north of Coos Bay.

Report authorized by resolution by the Committee on Public Works of the United States Senate, adopted August 7, 1948.

Existing project: Provides for rock jetties on the north and south sides of the entrance, a spur jetty, and groins; insofar as rock bottom will allow a channel 26 feet deep over the ocean bar, thence 20 feet deep and 300 feet wide between the jetties and along the south side of the bay to McLean Point, and a turning basin there 22 feet deep, 1,000 feet wide, and 1,200 feet along; an auxiliary channel 18 feet deep leaving the 20-foot channel near the highway bridge and extending along the Newport waterfront to the turning basin and thence to Yaquina; and a breakwater protected basin 10 feet deep at Newport.

Recommended plan of improvement: Provides for extending the jetties, deepening the bar and outer end of the entrance channel to 40 feet for a general width of 400 feet; deepening the channel to 30 feet thence to the turning basin for a width of 300 feet with additional widening at bends and at the basin entrance; and abandoning the northeast corner of the authorized turning basin and altering the basin to provide a depth of 30 feet over an area 900 to 1,200 feet wide and 1,400 feet long.

Estimated cost (price level, 1955)

Federal	$19,800,000
Non-Federal	31,200
Total	19,831,200

Local cooperation: (*a*) Furnish free of cost to the United States all lands, easements, rights-of-way, and suitable spoil-disposal areas necessary for the construction of the work and its subsequent maintenance, when and as required; (*b*) hold and save the United States free from damages due to construction and maintenance of the work; and (*c*) provide adequate terminal facilities open to all on equal terms; and provided further that the south jetty shall not be extended until experience demonstrates, in the judgment of the Chief of Engineers, that this work is advisable.

Project economics

Annual charges, total	$872,600
Annual benefits: Transportation savings	1,246,600
Benefit-cost ratio	1.43

Senator HRUSKA. Has the Bureau of the Budget had time to consider the report of the engineers?

Senator NEUBERGER. I do not believe that the Bureau of the Budget has considered the favorable report of the Army engineers.

Senator KERR. Can you give us the cost-benefit ratio? I think it is very high.

Senator NEUBERGER. The cost-benefit ratio—again, I will have to rely on General Itschner, but I believe it is 1.43; is that correct?

General ITSCHNER. I believe that is correct, sir.

Senator NEUBERGER. Thank you, General.

I want to say, Mr. Chairman, I would like to, if I may, submit for the record, the report of Maj. Gen. Charles G. Holle and his Board, and the covering letter from Major General Itschner, and my letter to the chairman of the committee.

Senator KERR. They may be made a part of the record.

(The above-mentioned documents are as follows:)

UNITED STATES SENATE,
COMMITTEE ON PUBIC WORKS,
July 16, 1956.

Hon. DENNIS CHAVEZ,
Senate Office Building,
Washington, D. C.

DEAR DENNIS: I am writing to ask your support for inclusion in H. R. 12080 of modification of the project for Yaquina Bay and Harbor, Oreg., which I shall propose in the Public Works Committee.

The proposed modifications are to deepen the navigation channels and turning basin by from 8 to 14 feet, beyond the existing project and to make other related changes. These modifications are necessary to permit deep draft, ocean-going vessels to use this spacious harbor, so as to provide shipping facilities for the extensive output of lumber from this coastal area, and for the delivery of petroleum products and of Alaskan pulp for a local paper mill.

This proposal has been recommended in a report of the Board of Engineers for Rivers and Harbors, with the concurrence of the Acting Chief of Engineers, which will be available to the committee. The estimated total cost, which will be spread over a number of years is $19,800,000. The Board's report states that the benefit-cost ratio of its recommended project modification is 1.43. You may recall that Gen. E. C. Itschner testified this morning that this project might well be included in the omnibus bill this year.

Development of good, deep-draft shipping facilities has long been a matter of vital necessity to this area of the Oregon coast, which is otherwise severely handicapped and isolated from the commercial opportunities afforded it by the vast timber resources surrounding it. I therefore sincerely hope that you will feel able to support authorization of the proposed modification of the Yaquina Bay and Harbor project as part of H. R. 12080.

With personal regards.

Sincerely,

RICHARD L. NEUBERGER.

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., July 16, 1956.

Hon. RICHARD L. NEUBERGER,
United States Senate,
Washington, D. C.

DEAR SENATOR NEUBERGER: In accordance with your request this date, inclosed for your ready reference are copies of the proposed report of the Chief of Engineers and the report of the Board of Engineers for Rivers and Harbors dated June 19, 1956, on Yaquina Bay and Harbor, Oreg.

Sincerely yours,

E. C. ITSCHNER,
Major General, USA,
Assistant Chief of Engineers for Civil Works.

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C.

Subject: Yaquina Bay and Harbor, Oreg.
To: The Secretary of the Army.

1. I submit herewith for transmission to Congress the report of the Board of Engineers for Rivers and Harbors in response to resolution of the Committee on Public Works of the United States Senate, adopted August 7, 1948, requesting the Board to review the report on the Yaquina Bay and Harbor, Oreg., published as Senate Document 119, 77th Congress, 1st session, and previous and subsequent reports with a view to determining whether it is advisable to modify the existing project in any way at this time.

2. After full consideration of the reports secured from the district and division engineers, and after affording local interests full opportunity to be heard, the Board recommends modification of the existing project for Yaquina Bay and Harbor, Oreg., to provide for extending the jetties, deepening the bar and outer end of the entrance channel to 40 feet for a general width of 400 feet; deepening the channel to 30 feet thence to the turning basin for a width of 300 feet with additional widening at bends and at the basin entrance; and abandoning the northeast corner of the authorized turning basin and altering the basin to provide a depth of 30 feet over an area 900 to 1,200 feet wide and 1,400 feet long; generally in accordance with the plans of the district engineer and with such modifications thereof as in the discretion of the Chief of Engineers may be advisable; at an estimated cost to the United States of $19,800,000 for new work with $167,700 annually for maintenance in addition to that now required; provided local interests agree to: (*a*) furnish free of cost to the United States all lands, easements, rights-of-way, and suitable spoil-disposal areas necessary for the construction of the work and its subsequent maintenance, when and as required; (*b*) hold and save the United States free from damages due to construction and maintenance of the work; and (*c*) provide adequate terminal facilities open to all on equal terms; and provided further that the south jetty shall not be extended until experience demonstrates, in the judgment of the Chief of Engineers, that this work is advisable.

3. After due consideration of these reports, I concur in the views and recommendations of the Board.

CHAS. G. HOLLE,
Major General, USA,
Acting Chief of Engineers.

CORPS OF ENGINEERS, UNITED STATES ARMY,
BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
Washington, D. C., June 19, 1956.

827 (Yaquina Bay and Harbor, Oreg.).

Subject: Yaquina Bay and Harbor, Oreg.
To: The Chief of Engineers, Department of the Army.

1. This report is submitted in response to the following resolution approved August 7, 1948:

"*Resolved by the Committee on Public Works of the United States Senate,* That the Board of Engineers for Rivers and Harbors, created under section 3 of the River and Harbor Act, approved June 13, 1902, be, and is hereby, requested to review the report on the Yaquina Bay and Harbor, Oregon, published as Senate Document numbered 119, Seventy-seventh Congress, first session, and previous and subsequent reports with a view to determining whether it is advisable to modify the existing project in any way at this time."

2. Vaquina Bay, the coastal estuary of Yaquina River 113 miles south of the Columbia River, extends inland 3.25 miles to the vicinity of Yaquina, a small village. A high-level highway bridge crosses the bay near the coastline, at mile 1 of the navigation channel. The north shore of the bay to the vicinity of McLean Point at mile 2, is occupied by the city of Newport. The existing Federal project for the bay and harbor provides for rock jetties on the north and south sides of the entrance, a spur jetty, and groins; insofar as rock bottom will allow, a channel 26 feet deep over the ocean bar, thence 20 feet deep and 300 feet wide

between the jetties and along the south side of the bay to McLean Point, and a turning basin there 22 feet deep, 1,000 feet wide, and 1,200 feet long; an auxiliary channel 18 feet deep leaving the 20-foot channel near the highway bridge and extending along the Newport waterfront to the turning basin and thence to Yaquina; and a breakwater-protected basin 10 feet deep at Newport. The project was essentially completed in 1952 except for the northeasterly corner of the turning basin where a rock ledge exists. Costs to the United States for the existing project to 30 June 1955 were $2,181,746 for new work and $1,396,534 for maintenance. Local interests contributed $729,168 toward the cost of new work authorized in 1919. Project depths are referenced to the plane of mean lower low water. The tidal range between that datum and mean higher high water is 8.1 feet. A completed Federal project for Yaquina River provides for a channel 10 feet deep and about 9 miles long from the head of the bay project upstream to Toledo. The nearest channel to the north improved for ship navigation is at Tillamook Bay, 66 miles distant, where the project depth is 18 feet. Columbia River, 113 miles north, has been deepened to 40 feet at the entrance and affords a depth of 35 feet inland to Portland. The Federal project for Umpqua River, 65 miles to the south, provides for depths of 26 feet in the entrance and 22 feet in the interior channel; and Coos Bay, 87 miles south, has project depths of 40 feet over the bar and 30 feet in the bay channel.

3. In general the Yaquina Bay region is mountainous. Timber is its principal resource. Newport, with a population of 3,240 in 1950, is the largest community in the vicinity of the bay, and an important port for commercial fishing as well as shipment of lumber. Terminal facilities on the bay include small-boat moorings and a public wharf for fishing boats at Newport, a lumber wharf open to the public at McLean Point, and privately owned moorings at the turning basin and on the 20-foot channel where lumber is loaded from barge to ship. The nearest railroad terminates at Toledo, 8 miles east by improved highway. Lumber is barged from there to the bay area. Exclusive of internal commerce and military shipments, the commerce on the bay averaged 158,171 tons annually during the period 1949 through 1953. In 1953 this commerce amounted to 141,948 tons, consisting of 3,211 tons of fish, 138,601 tons of lumber and other forest products, and 136 tons of miscellaneous commodities. Total lumber shipments, including military, during the years 1950 through 1954 averaged 221,484 tons annually. In 1954, 260,205 tons, or 157,700,000 net board feet, were shipped in 83 vessels in the intercoastal and offshore trade and 18 smaller coastwise vessels. Ships drawing 12 to 24 feet made 184 upbound and downbound trips on the bay in 1954.

4. Local interests desire deepening of the channel to 40 feet across the ocean bar at Yaquina Bay deepening of the main inner channel and turning basin to 30 feet, lengthening the turning basin, and widening the channel to 500 or 600 feet. They suggest that the north jetty be extended seaward to Yaquina Reef, a submerged rock formation paralleling the coast. Local interests claim that the existing improvement does not permit shipment of all the lumber available and that the desired improvements should be credited with land transportation savings on the excess lumber in prospect which must now be transported to other ports. Also they believe that further improvement of the harbor would result in new commerce in wood chips for shipment to the Orient, receipt of petroleum products for distribution, and benefits in connection with commercial and recreational fishing. Local interests have indicated that they will furnish spoil-disposal areas for the desired work and cooperate in other respects.

5. The district engineer considers three plans for providing increased depths. Each includes extension of the north jetty 1,800 feet to Yaquina Reef and of the south jetty an equal distance, a channel width of 400 feet across the bar and within the jetty extensions and thence generally 300 feet wide to the turning basin and relocation of the turning basin so it will extend 900 feet farther upstream with a length of 1,400 feet and width ranging from 900 to 1,200 feet. Channel depths considered in the first plan are 40 feet below mean lower low water across the ocean bar and within the jetty extensions, and 30 feet in the remainder of the channel to the turning basin and within the basin. Corresponding depths for the second plan are 34 and 26 feet, respectively, and for the third plan are 30 and 24 feet. On the basis of price levels during the first quarter of

1955, and including costs to local interests for lands, spoil areas, and dredging at docks, the district engineer estimates the costs for these plans as follows:

Plans	40 to 30 feet	34 to 26 feet	30 to 24 feet
Federal first cost:			
Channel, basin, and jetties	$19,801,800	$15,076,200	$12,337,100
Navigation aids	23,500	23,500	23,500
Total	19,825,300	15,099,700	12,360,600
Non Federal first cost	31,200	21,900	17,100
Total first cost	19,856,500	15,121,600	12,377,700
Annual maintenance: Channel, basin, and jetties	167,700	141,700	123,700
Total annual carrying charges	872,600	678,000	562,500

6. The district engineer finds that the evaluable benefits for these plans of improvement pertain principally to shipments of lumber. His investigations indicate that the lumber available for water shipment over a future 50-year period will average 426,000 tons annually and that this amount of lumber could be shipped with the existing channel depths. Therefore he evaluates the benefits of the further improvements on the basis of the reduction in vessel costs for movement of this commerce, by lessening the time now lost by vessels awaiting favorable tides and weather conditions, maneuvering in port and running between ports since the channel depths at Yaquina Bay do not permit the most economical port sequence in loading of vessels. He also makes allowances for reduction of vessel damages and evaluates transportation savings in the annual shipment of a prespective 75,000 tons of wood chips. His estimates of the annual benefits and benefit-cost ratios for the several plans of improvement are as follows:

Annual benefits	Plan		
	40 to 30 feet	34 to 26 feet	30 to 24 feet
Improvement in loading sequence	$225,000	$225,000	$120,000
Reduction in delays	104,700	92,300	69,800
Shipment of wood chips	110,600	106,000	
Prevention of damages	8,000	8,000	8,000
Total	448,300	431,300	197,800
Ratio of benefits to costs	0.51	0.64	0.35

7. The district engineer has also considered a relocation of the turning basin and proposes a change in that area that will provide a basin 22 feet deep, 900 to 1,200 feet wide, and 1,400 feet long, extending 900 feet above the head of the existing basin. He estimates the first cost at $120,900 for dredging and $12,400 for navigation aids, a total Federal first cost of $133,300, and the first cost to local interests at $2,000 for lands. The estimated annual carrying charges for this work, including $12,000 for additional maintenance dredging, are $17,020. With annual benefits estimated at $13,900 for elimination of delays in the maneuvering of vessels and $8,000 for reduction in related damages, a total of $21,900, the benefit-cost ratio is 1.29. The district engineer concludes that prospective benefits do not economically justify further deepening of existing navigation channels of Yaquina Bay at this time. However, he recommends that the existing project be modified to provide for abandoning the northeast corner of the existing turning basin and extending the basin approximately 900 feet upstream, provided local interests furnish rights-of-way and spoil-disposal areas and hold the United States free from all claims for resulting property damage.

8. The division engineer considers the district engineer's engineering appraisal sound and his cost estimates reasonable. He agrees in the methods used in computing the benefits. At the request of local interests the division engineer investigated a plan having a channel 24 feet deep with no deepening over the bar. He finds the benefits of this improvement to be insignificant compared to the costs and concludes that no consideration should be given to deepening the inner channel without deeping the bar channel. He concurs in the findings and recommendations of the district engineer.

9. Local interests were notified of the nature of the reports of the district and division engineers and afforded an opportunity to submit additional information to the Board. At their request the Board of Engineers for Rivers and Harbors held a public hearing November 29, 1955. All statements by local interests at the hearing were favorable to deepening the project channels and basin. They expressed the opinion that extension of the south jetty might not be necessary and that the work would be less costly than estimated by the district engineer. Producers and shippers of lumber from the area stated that, due to the limitations of the existing channel, they now have difficulty securing cargo space. The principal information furnished at the hearing and subsequent thereto which was not available when the district and division engineers considered the desired improvements relates to recently formulated plans by a local industry to construct a pulp plant and paper mill at Toledo. The industry states that it has a contract for cutting timber in Alaska during a period of at least 50 years and that this contract with the Forest Service requires construction of a pulp plant at the site. It intends to ship the pulp from Juneau, Alaska, to Yaquina Bay and thence via barge to Toledo for blending with pulp to be produced there. This mixture will be used in the manufacture of kraft paper and pulpboard. The company states that construction of the pulp plant and paper mill at Toledo has been initiated and indicates that the Alaska plant will commence operation in 1961. The industry states that further improvement of Yaquina Bay will result in large savings in transportation costs in connection with these operations. They advise that the annual tonnage inbound to the bay in deep-draft vessels will include 183,750 tons of Alaskan pulp and 77,000 tons of special high-viscosity fuel oil for use at the plant. This fuel has cost advantages but requires transport in tankers equipped with heating facilities to avoid solidifying of the fuel while in transit. The company plans to produce about 200,000 tons of paper and pulpboard annually to ship about 60 percent of this through the bay, and to transport the remainder by rail. Local interests state that the Newport-Toledo area now consumes 30,000 tons of gasoline, diesel oil, and other petroleum products annually and a large producer has indicated that it would ship such products into the bay to meet future demands.

VIEWS AND RECOMMENDATIONS OF THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS

10. The Board of Engineers for Rivers and Harbors has carefully considered the reports of the district and division engineers, and the presentations by local interests. Of the 3 plans for deepening, considered by the district engineer, the 40–30 -foot plan and the 34–26-foot plan have the greater merits. The Board has reevaluated these to take into account prospective commerce in connection with the plans of local interests for manufacture of paper. The pulp and paper operations were not sufficiently assured and defined when the reporting officers were making studies, for them to evaluate the related benefits.

11. The plans of the district engineer which include seaward extensions of both jetties are suitable. Extension of the south jetty is not specifically advocated by local interests and involves large costs. The Beach Erosion Board has been consulted in regard to this problem and it states that the predominant direction of littoral transport is southward and that there is considerable probability that the channels of either plan can be suitably maintained without extension of the south jetty. The Board of Engineers for Rivers and Harbors agrees. However, it believes that in considering the economic advisability of modifying the project, all works and costs which may eventually be required should be included. If accomplishment of either of the plans is authorized it should be with the understanding that the south jetty will not be extended until such time as experience demonstrates, in the judgment of the Chief of Engineers, that this work is advisable.

12. Estimates of the average annual production of lumber for a future 50 years from the area commercially tributary to Yaquina Bay as designated by the district engineer were furnished by local interests for the private forests; and by the Forest Service, United States Department of Agriculture, and the Bureau of Land Management, Department of the Interior, on a sustained-yield basis for the public forests under their jurisdictions. In his opinion the existing project could accommodate all the lumber commerce available for shipment by water. Hence, his estimate of benefits is based on the assumption that regardless of whether oa not the existing project is modified to provide increasded depths, the lumber commerce in prospect for the bay consists of one-half of the produc-

tion from the tributary area within the three counties nearest the bay and one-third from the four counties more remote except that water shipments in the coastwise trade from these four counties will use adjacent ports. Several producers and shippers of lumber from the tributary area have furnished evidence that in view of the limitations of the existing channels at Yaquina Bay, they are handicapped in securing cargo space. In view thereof and the trend toward increase in vessel drafts, the Board believes that the inadequacies of the existing project will prevent the shipment of some of the prospective lumber commerce. In its estimate of such comerce for the existing project the Board includes one-third rather than one-half of the production from the three nearby counties. Its estimate is 321,000 tons annually. For the 40 30-foot plan it agrees with the district engineers's estimate of 426,000 tons. For the 34 26-foot plan it uses 400,000 tons thus attributing to this 75 percent of the increase. Benefits per ton for the 321,000 tons are derived from the district engineer's analysis which in essence is accepted. For the commerce attributable to further improvement the estimated unit benefit is $2.15 per ton based primarily upon the lesser cost for land transportation to Yaquina Bay as compared with transportation to Portland or Coos Bay for vessel shipment.

13. Local interests have submitted evidence that their plans for the paper mill and pulp operations are now being carried out. Justification for accomplishment of either plan for further improvement of the bay also depends upon benefits to commerce involved in the production of pulp and paper. The Board's estimates of benefits relating to receipt of pulp from Alaska and fuel oil and other petroleum products from California are estimated savings based upon costs or water transportation with and without the further deepening of the channels, taking into account in the case of fuel oil the economies of a high-viscosity fuel which local interests plan to use if the channels are deepened. This fuel is not adapted to receipt on the existing channels because it is transported only in large tankers with facilities for heating to prevent solidification of the cargo en route. A large supplier of petroleum products has indicated a future market for 90,000 tons of gasoline, diesel oil, heating oil, and miscellaneous types annually but benefits are evaluated for only 30,000 tons which is the estimated present consumption in the Toledo-Newport area. The Board believes that unless the project channels are deepened general cargo vessels for shipment of paper and pulpboard in the export and intercoastal trades will not be available at Newport, and that these products, estimated at 120,000 tons annually, will be shipped overland for vessel loading at Portland. The industry claims that if the Yaquina Bay project is modified as desired this commerce will be shipped through Newport with large savings in land transportation costs. Because of the limited prospects for general cargo to attract carriers to Newport the Board believes that deepening the channels will not divert all of this tonnage to Yaquina Bay. It evaluates benefits, through savings in cost for transportation to vessel loading point, on 50 percent of this commerce for the 40 30-foot plan and on 40 percent for the 34 26-foot plan. The Board evaluates annual benefits as follows:

Commodity	34-26-foot plan			40-30-foot plan		
	Tons	Benefit		Tons	Benefit	
		Per ton	Total		Per ton	Total
Lumber in prospect for existing project:						
Coastwise trade	62,700	$0.16	$10,000	62,700	$0.16	$10,000
Intercoastal trade	113,700	1.04	118,200	113,700	1.15	130,800
Offshore trade	144,600	.73	105,600	144,600	.84	121,500
Lumber, additional	79,000	2.15	169,900	105,000	2.15	225,700
Alaskan pulp	183,750	1.50	275,600	183,750	1.50	275,600
Fuel oil	77,000	.84	64,700	77,000	1.80	138,600
Paper and pulpboard	48,000	5.50	264,000	60,000	5.50	330,000
Miscellaneous petroleum products	30,000	.48	14,400	30,000	.48	14,400
Total	738,750		1,022,400	776,750		1,246,600

14. With these prospective benefits, and annual carrying charges as estimated by the district engineer, the benefit-cost ratio for the 40 to 30 foot plan is 1.43 and

for the 34 to 26-foot plan is 1.51. Evaluated annual benefits for the 40 to 30-foot plan exceed those for the lesser improvement by $224,200 as compared with incremental annual carrying charges of $194,600, a favorable ratio of 1.15. In the opinion of the Board the 40 to 30-foot plan is economically preferable.

15. Accordingly, the Board recommends modification of the existing project for Yaquina Bay and Harbor, Oreg., to provide for extending the jetties, deepening the bar and outer end of the entrance channel to 40 feet for a general width of 400 feet; deepening the channel to 30 feet, thence to the turning basin for a width of 300 feet with additional widening at bends and at the basin entrance; and abandoning the northeast corner of the authorized turning basin and altering the basin to provide a depth of 30 feet over an area 900 to 1,200 feet wide and 1,400 feet long; generally in accordance with the plans of the district engineer and with such modifications thereof as in the discretion of the Chief of Engineers may be advisable; at an estimated cost to the United States of $19,800,000 for new work with $167,700 annually for maintenance in addition to that now required; provided local interests agree to: (a) furnish free of cost to the United States all lands, easements, rights-of-way, and suitable spoil-disposal areas necessary for the construction of the work and its subsequent maintenance, when and as required; (b) hold and save the United States free from damages due to construction and maintenance of the work; and (c) provide adequate terminal facilities open to all on equal terms; and provide further that the south jetty shall not be extended until experience demonstrates, in the judgment of the Chief of Engineers, that this work is advisable.

For the Board:

CHAS. G. HOLLE.
Major General, United States Army, Chairman.

Senator NEUBERGER. Again, I want to say, I am appearing here today for both Senator Morse and myself. He had important business on the floor and an important District of Columbia meeting which was acting finally on legislation and he could not be here with me.

Senator HRUSKA. The Board of Engineers has approved this project?

Senator NEUBERGER. Yes, sir, on June 19 of this year.

And for your information, Mr. Chairman, I brought this because I know you are interested in nomenclature, as I remember the discussion we had on Beaver Marsh. The term "Yaquina" comes from Yaquina Indians and Merriweather Lewis and William Clark referred to these Indians in their immortal journals as the Yakonan Tribe. We know them now as Yaquina Tribe.

I remember your interest in nomenclature, so I looked it up ahead of time.

Senator KERR. I think you will find, Senator, when we hear from the engineers, that this project has all of the approval that it can have without approval of the Budget, and very likely, the only reason that has not been done, it has just been a matter of handling the traffic.

I take it that the Senators from Oregon would like to anticipate that and get it in this year rather than to maybe have a report come out from the Budget shortly after Congress has adjourned, but then not have the opportunity of getting it authorized for another 2 years.

Thank you very much, Senator.

Senator KERR. I am going to suggest, in view of the fact that Mr. Heard has come a long way and in view of the fact that we could now hear him, that he go ahead. He asked for an hour and I told him he could have 30 minutes.

All right, Mr. Heard, if you care to present what you have with reference to the West Branch of the Mahoning River project as contained in the House bill and referred to by Senator Bender and Congressman Kirwan, you may do so.

81980—56——15

STATEMENT OF JOHN J. HEARD, PITTSBURGH, PA., UPPER OHIO VALLEY ASSOCIATION

Mr. HEARD. Senator Kerr and members of the committee, my name is John J. Heard. I am a Pittsburgh lawyer with the firm of Reed, Smith, Shaw & McClay. We represent the Upper Ohio Valley Association of some 500 members named on the list I shall file with you. Among these are a number of railroads, steel, oil, coal, and manufacturing companies, and others.

We appear here to protest the inclusion of the West Branch of the Mahoning River project in the 1956 omnibus bill as it is neither intended nor needed for flood control because the district has long been substantially overcontrolled.

We are certain it is intended and will be used, if provided, to supply and store needed lockage water for a proposed billion dollar canal project from the Ohio River past Youngstown to Lake Erie. This has been considered many times during the past 20 years and a project for it is now before the Board of Engineers, following its approval by the district and division engineers.

Two of the three reservoirs, recommended as necessary for canal operation, have already been constructed at a cost of many millions of dollars as flood-control reservoirs, but the engineers ignoring this, have included both reservoirs in their canal plan, without adding one dollar of their cost to the cost of the canal, thus making the canal seem much less expensive and its economic justification much easier to obtain.

The present project, we are convinced, is designed and will be treated and used in exactly the same way as the third necessary storage basin for canal water. A similar, but larger and much costlier reservoir designed for the same purpose, referred to, as the diversion project, in this very district was turned down by the Board of Engineers less than 2 years ago, after its approval by the district and division engineers.

A Youngstown Canal project, which was pending in 1944, came before this Senate in that year and was defeated by the overwhelming vote of 52 to 16.

We particularly appreciate the privilege of appearing before you as the House committee ignored our request to be allowed to appear and be heard.

The report which accompanies the omnibus bill states:

> All witnesses who so desire have had opportunities to be heard.

We had no such opportunity and so we may have to put that down as a misstatement. The reason we get so worked up over each of Youngstown's many canal projects or projects in aid of a canal, appear, even from a hasty glance at the opinion of the Interstate Commerce Commission report at 235, page 753 in the year 1939. I will pass around copies of this opinion for your file. If you do not care to read it all, you can start with the summary on the last page. It covers what the ICC thinks a canal would do to the railroads and districts which compete with Youngstown.

Even back in the year 1939, the Commission thought it would affect and perhaps divert 56 million tons of freight from the railroads and would result in a gross annual revenue loss of over $36 million. Under

the present level of rates, this might be much nearer $70 million, even though the number of tons stayed the same, which they would not because the tonnage is away up since then.

The loss then might mean as much as $100 million a year of gross revenue to the railroads serving the Youngstown district and similar districts because any reduction in the rates which the railroads tried to put in could not be limited to that district, but would spread all over the country.

The level of the iron-ore rates would be entirely changed and the coal rates would also be changed and the Commission condemned that most severely. It said that the railroads simply could not take it and the ones that were leased, the least prosperous, would certainly fold up and go down.

The opinion explains why competing steel-making districts should worry about a canal. It explains why this whole thing is not just a fight about a canal, but rather, a contest about railroad rates without any aid from the Commission.

Inclusion of the West Branch Reservoir in the 1956 omnibus bill would be premature. Certainly, it would be contrary to the practices established in effect for many years as no Engineers' Report has been submitted, for admittedly the report is not even half finished.

An additional appropriation of $28,500 has just been made with which to finish the work and get up a report, which may not be ready until next year. Certainly, not for some months. How can an interested party properly consider a project without first having access to a completed report? We never had such a situation before. This is something brand new in our experience, and to us, it just is not good.

Existing law requires such a report before Congress can act on a project. The House 1956 version of the omnibus bill would change all of that by omitting the provision in the existing and earlier statutes, requiring a report from the Engineers before the matter goes before Congress. Among other things the matter with this project is that it has not yet been reported on to the Commonwealth of Pennsylvania, as required by existing flood control acts. Pennsylvania is affected and an interested State in this.

Senator KERR. At this point, Mr. Heard, would you look at the map and show us the boundary there between Ohio and Pennsylvania?

Mr. HEARD. Yes, sir. May I pass these maps around. These are something small you can look at.

Senator Kerr, this is the boundary line [indicating on the map] between Pennsylvania and Ohio. The proposed reservoir is shown in red over here and the bodies of water shown in blue are existing reservoirs. All of these are reservoirs [indicating], which is the proposed Grand River Reservoir for the canal flow down the Mahoning and into Beaver River through Pennsylvania for 30 some miles.

Senator KERR. Into the Ohio?

Mr. HEARD. And into the Ohio at Beaver, Pa.

Senator KERR. Thank you very much.

Mr. HEARD. One of the reasons that Pennsylvania would be affected by this is that you must have noticed from Mr. Kirwan's presentation, that the waters of the Mahoning River are probably the most polluted waters in the United States. They are violating the city of Youngstown and the whole district has violated the law of Ohio for many

years with respect to dumping untreated sewage from a population of three quarters of a million people into the river to be flushed down into the Beaver into Pennsylvania, and then into the Ohio.

The mills out there discharge perfectly huge quantities of industrial wastes, including sulphuric and other acids, and that, combined with the sewage, makes a perfectly impossible situation. How the people of Youngstown stand that nobody knows who does not live there, but apparently, they would rather have it that way then pay the cost of an ordinary modern sewage treatment plant.

Senator HRUSKA. Mr. Heard, at that point, would the waters from this proposed West Branch Reservoir help that situation any? It was suggested if this water was used to flush out that stream down there, that it would alleviate that situation.

Mr. HEARD. It might keep it moving a little faster but the fellows down below would get it and they do not get it now nearly to such an extent. I have covered that in my principal presentation at length with clippings and various reports.

Now, one of the things that we were at a loss to understand was why we did not get notice of the proposed hearing before the House Public Works Committee and its subcommittee on flood control. We had requested by telephone, by telegram, and by letter repeatedly, long before the hearing, that we be given a chance to appear and be heard.

The only way that we knew there had been a hearing was when, some days afterward, we read about it in the Youngstown Vindicator. We tried to have the matter opened up so we could get in and we were refused with very scanty courtesy.

Senator KERR. You are referring to the House committee?

Mr. HEARD. The House committee. But, I believe that we got a break at that because I do not think we would have gotten very far before the House committee and I would far rather take my chances with the committee before whom we are now.

Now, this is Mr. Kirwan's project, his canal project. He has worked on the canal for 20 years. He and I have reappeared time after time before every regulatory body in Ohio and Pennsylvania. We have been before committees of Congress many time, but only once before, before the committee of the Senate, at which time, as I told you, the vote was 52 to 16 against the project.

The excuse that Mr. Kirwan gave, which appears in the record of the hearing, as to why the matter was being rushed through without an engineers' report and without our having a chance to be heard was that a decision by the General Motors Co. to erect an $85 million assembly plant for Chevrolet depended on the outcome of the action of Congress on this West Branch project and that unless assurances were immediately given or given as soon as possible to General Motors, that this reservoir would be put in, the plant would be located somewhere else.

That is a very remarkable situation because it was never intended, as far as I know, that any of this water should ever be used at that plant because the plant requires filtered water and there is no intention of filtering this water. But over and above that, and more important, whatever may have been the connection between the reservoir and the location of the plant, which I think was 10 days before this secret star chamber hearing, which Mr. Kirwan seems to have engineered so

that we could not be heard, the newspapers over the whole district came out with front page notices and feature articles, pictures, and one issue of the Youngstown Vindicator had five articles about this, and they all came out at least a week before Mr. Kirwan's statement, all to the effect that General Motors had decided to locate the plant at Lordstown, which is the location, that an ample supply of water had been guaranteed and that construction work would start immediately.

They have acquired the land, as I understand, and the contracts have been let, but I have recently seen that because of the slump in the automobile business, the heat is off and the plant will probably not be finished until sometime late in 1958.

I will file copies of my prepared statement and copies of the ICC report, and in closing, I wish to call your attention to one further matter.

In the report on this project, in House Report 2639, which is the report to accompany the House version of the omnibus bill, as it will come here and I do not know whether the House has yet passed its omnibus bill——

Senator KERR. It has not.

Mr. HEARD. Thank you. There is a four-paragraph reference to the West Branch Mahoning River Reservoir project. The second line, as it appears in that report, is as follows:

> In accordance with the Report of the Chief of Engineers—

and it goes on. Ten days ago or so, when I saw that, I wired to the Chief of Engineers as to whether or not that was a true and correct statement. I did not hear from him until my office called me yesterday and he told me that they had received a telegram from Major General Charles Holle, Acting Chief of Engineers, Washington, D. C.

My telegram is referred to and quoted. I will file a copy of this. It ends up by saying:

> Report of Chief of Engineers referred to in House committee report has not yet been prepared.

And, manifestly, it could not be prepared because the district engineers have 6 months more to work on that job before they even know where the dam is going to be or how it is going to be.

I would like to call on Major General Breene, who is an engineer, and who will take up the flood-control features or lack of them in this project.

Senator KERR. Now, your statement, Mr. Heard, will be made a part of the record, and the wire referred to. The other exhibits you have introduced will be filed with the record.

(The materials referred to above are as follows:)

FORT GEORGE G. MEADE, MD., *July 16, 1956.*

JOHN J. HEARD,
747 Union Trust Building, Pittsburgh, Pa.:

From ENGWD 293. Re your telegram dated July 10 on West Branch Mahoning River, Ohio, H. R. 12080 provides for authorization of West Branch project "in accordance with plans to be prepared by the Chief of Engineers." Report of Chief of Engineers referred to in House committee report has not yet been prepared.

Maj. Gen. CHAS. G. HOLLE,
Acting Chief of Engineers, Washington, D. C.

STATEMENT OF JOHN J. HEARD, COUNSEL FOR UPPER OHIO VALLEY ASSOCIATION, CONCERNING THE RESERVOIR PROPOSED ON THE WEST BRANCH OF THE MAHONING RIVER IN PORTAGE COUNTY, OHIO

My name is John J. Heard. I am a Pittsburgh lawyer, connected with the firm of Reed, Smith, Shaw & McClay, which has been in active practice since 1879. We are proud of the fact that two members of our firm served as United States Senators. One was Philander C. Knox, who served in the Senate from June 30, 1904, to March 4, 1909, when he resigned to become Secretary of State. Later he became a Member of the Senate again on March 4, 1917, and continued so until his death on October 12, 1921. Our other Senator was David A. Reed, who served from August 8, 1922, to December 31, 1934.

We appear here as the representatives of the Upper Ohio Valley Association, to protest the authorization by Congress of an alleged flood-control project for a reservoir on the west branch of the Mahoning River above Youngstown.

Our association, which is unincorporated, is composed of several hundred members, among them railroads, steel, oil, coal and manufacturing companies, labor unions, municipalities, and others opposed to various Youngstown canal projects and to the expenditure of Federal funds on construction of projects in aid of a canal. Several copies of a partial list of our members are filed herewith. The principal activities of the association, extending over a period of more than 20 years, have been directed toward opposing the efforts of Youngstown and its steel companies to obtain authorization for a proposed toll-free canal between the Ohio River and Lake Erie known as the through canal project or a project for a so-called stub-end canal from the Ohio to Youngstown. The association has also opposed projects believed to be intended to aid a canal project while pretending some totally different purpose. Such a one was the Mahoning-Grand Rivers diversion project, allegedly intended to protect Youngstown aaginst floods, at a cost of more than $75 million. It was approved by the district and divsion engineers but was turned down by the Board in November 1954.

ALTHOUGH WE REQUESTED IT, WE WERE DENIED OPPORTUNITY OF APPEARING BEFORE THE HOUSE FLOOD CONTROL SUBCOMMITTEE

In the first paragraph, page 2, of House Report 2639, there is a statement to the effect that the House Flood Control Subcommittee "held extensive hearings on all matters contained in the bill. * * * During these hearings all witnesses who so desired have had opportunities to be heard."

This statement is incorrect. Bearing in mind that the hearing on this project was held by the subcommittee on May 23 last, a statement as to our efforts to learn when the hearing would take place and to get permission to present testimony in opposition to the project seems important.

On May 14, 1956, we tried to reach Congressman Buckley, chairman of the House Public Works Committee, by telephone but were unable to contact him. We left word asking he call us, which he did not do. On the same day we called Mr. C. G. Tierney, chief clerk and counsel of the House Public Works Committee, and requested that he inform us when the project would be referred to the Flood Control Subcommittee and that he let us know as far in advance as possible of any hearing date which might be set. We told him we wished to appear at such a hearing and oppose the project. He agreed to do this, subject, however, to calls upon his time due to the press of business. He said he was extremely doubtful that the project would be acted on at this session. On the same date we wrote him to the same effect.

On May 15, 1956, we wrote Mr. Buckley stating that we had tried to reach him by phone on the day before and requested him to advise us in advance of the time which might be fixed for a hearing "before your committee or a subcommittee thereof." We asked him if he had any idea as to when such a hearing might take place and suggested that, if there were a hearing, we would probably like to appear and object to the project. We never heard from him.

On May 25, 1956, we learned from an outside source that there had been a hearing on West Branch and we called Congressman Davis, chairman of the subcommittee on Flood Control, to ascertain what had occurred at the hearing and requested that we be given an opportunity to appear and protest the project. We received no cooperation from him, and sent him a telegram and a letter on the same day, but to date we have not received a reply to either. A copy of our letter to Mr. Davis is attached hereto.

INCLUSION OF THIS PROJECT IN PENDING OMNIBUS FLOOD-CONTROL BILL IS PREMATURE AND IMPROPER

The West Branch project is listed on page 28, lines 6 to 9, inclusive, H. R. 12080, as follows:

"The project for flood protection on the West Branch of the Mahoning River, Ohio, is hereby authorized substantially in accordance with plans to be prepared by the Chief of Engineers at an estimated cost of $14,000,000."

In House Report No. 2639, which is the report of the House Committee on Public Works on H. R. 12080, the project is described as follows:

"WEST BRANCH MAHONING RIVER RESERVOIR, OHIO

"(In accordance with the report of the Chief of Engineers)

"*Location.*—Mahoning River rises near Alliance, Ohio, flows through the heavily populated and industrialized areas of Youngstown and Warren, Ohio, and joins the Shenango River at New Castle, Pa., to form the Beaver River. The Beaver flows into the Ohio River, 25 miles below Pittsburgh.

"Report authorized by House Public Works Committee resolution, adopted March 10, 1955.

"*Existing project.*—Provides for the Berlin and Mosquito Creek Reservoirs for flood-control and allied purposes."

"*Plan of recommended improvement.*—Dam and reservoir on the West Branch about 10 miles above the mouth for flood control and low flow regulation.

"*Estimated cost.*—$14 million.

"*Local cooperation.*—Local cooperation will be required on the basis of pollution control, industrial water supply and temperature control, and land enhancement benefits provided by the project.

"Annual charges	$570,000
Annual benefits	$650,000
Benefit-cost ratio	1.14"

Particular attention is directed to the second line of the above quotation from the report, which states: "In accordance with the report of the Chief of Engineers." We know of no such report although we have tried to ascertain whether there is one. On July 10, 1956, the day we first saw the House report, we wired the Chief of Engineers inquiring whether such a report had been made and, if so, the nature of it. We requested that he wire us collect. To date we have received no acknowledgment or reply, although we have reason to believe that our telegram was delivered. Therefore, we feel reasonably sure there is no report, at least such as the statute contemplates, as the district engineer has not nearly completed his survey, has as yet made no report, and, admittedly, will not be in a position to do so until next December at the earliest, and possibly next May. An appropriation of $28,500 to complete the district engineer's work has only just been authorized.

In the absence of the kind of a report of the Chief of Engineers which the Federal statutes require, inclusion of the West Branch project in the 1956 omnibus bill is premature and improper.

In support of our position, we cite the following:

Statutory law

1. Section 202 of the Rivers and Harbors Act of 1954 and of numerous previous acts provides as follows:

"SEC. 202. The provisions of section 1 of the Act of December 22, 1944 (Public, Numbered 534, Seventy-eighth Congress, second session), shall govern with respect to projects authorized in this act, and the procedures therein set forth with respect to plans, proposals, or reports for works of improvement for navigation or flood control and for irrigation and purposes incidental thereto shall apply as if herein set forth in full.

"It is hereby declared to be the policy of the Congress that the following provisions shall be observed:

"No project or any modification not authorized, of a project for flood control or rivers and harbors, shall be authorized by the Congress unless a report for such project or modification has been previously submitted by the Chief of Engineers, United States Army, in conformity with existing law."

2. Section 1 of the act of December 22, 1944, Public Law 534, referred to above, provides:

"(a) Plans, proposals or reports of the Chief of Engineers, War Department, for any works of improvement for navigation or flood control not heretofore or herein authorized shall be submitted to the Congress only upon compliance with the provisions of this paragraph (a):".

The only evidence before the committee as to the physical features, probable cost, etc., of the project consists of a brief oral statement by a representative of the corps, which, on its face, was so incomplete that no mature recommendation could possibly be based upon it. In any event, this testimony could not reasonably be considered as "a report of the Chief of Engineers."

The applicable Rivers and Harbors Act requires that the Chief of Engineers must submit copies of his proposal to each affected State and within 90 days from the date of receipt of such report, the written views of each affected State may be submitted to the Chief of Engineers. For the reasons which appear herein later, Pennsylvania is an affected State within the meaning of the term used in the statute, but recently inquiry from the Governor's office and from the secretary of forests and waters indicates that no such copies of this proposal and no notice of any kind regarding the project was given or received.

SECTION 202 OF H. R. 12080 (P. 17), IS APPARENTLY INTENDED TO BRING ABOUT A FUNDAMENTAL CHANGE IN THE METHOD OF HANDLING RIVERS AND HARBORS AND FLOOD-CONTROL PROJECTS

The 1956 bill has deleted and omitted any reference to the provision in all earlier flood-control acts as follows:

"It is hereby declared to be the policy of the Congress that the following provisions shall be observed:

"No project or any modification not authorized, of a project for flood control or rivers and harbors, shall be authorized by the Congress unless a report for such project or modification has been *previously* submitted to the Chief of Engineers, United States Army, *in conformity with existing law*." [Italic ours.]

Not only has the foregoing statutory provision been deleted, but House Report 2639 advises the Senate that the proposed new section 202 (p. 40), is the same as "several earlier flood-control acts." The new draft of section 202 is as follows:

"SEC. 202: This section is also the same as that which has appeared in the last several flood-control acts and continues the present procedure of submitting reports to the interested States and Federal agencies prior to submission to Congress."

If H. R. 12080 is adopted in its entirety by the Senate in the form in which it came from the House, we have no way of knowing what steps opponents of a particular project can take in order to protect their interests. Heretofore the uniform practice has been—at least in our experience—for the district engineer to prepare a detailed report on each project, which is then submitted by him to the division engineer. Interested parties are given access to the report and an opportunity to study and analyze it in detail. They have been able to discuss the report with members of the district engineer's technical staff and can then decide whether they wish to oppose the project and if so, on what grounds.

The district engineer then holds a hearing at which interested parties may appear and offer testimony in opposition to the project or particular portions of the report. If the district engineer concludes any of these objections are sound, he has an opportunity to change his report to meet the objections, or he may completely change his original recommendation. This very thing occurred in connection with the report of the Pittsburgh district engineer, Major Styer, in his June 26, 1933, report on the Youngstown Canal. Later Major Styer and Colonel Moore, who agreed with the Styer findings, were reversed by the Board and such reversal was sustained by General Markham, Chief of Engineers, on March 3, 1934, on the grounds that the Youngstown steel industry was suffering under the terrible handicap of too high freight rates and that unless some relief could be afforded by the construction of a canal, the Youngstown district could no longer prosper and its future welfare would be jeopardized. All of the Youngstown witnesses had said that without the canal, Youngstown would wither on the vine and become a ghost town. Some ghost.

The southern half of the Youngstown Canal came before the Senate as a separate project in 1944, and although recommended by its Public Works Committee, the Senate turned it down by a vote of 52 to 16. Perhaps the major inducement of the Senate to defeat the measure was the detailed testimony

of the proponents' engineering and economic witnesses who, using the district engineer's report as a basis, testified against the project before the Senate subcommittee.

Apparently under the new-intended section 202, this could not have happened. Our examination and analysis of the district engineer's report and the testimony of our experts regarding it, resulted in the defeat of the Mahoning-Grand Rivers diversion flood-control project before the Board of Army Engineers in the fall of 1954, less than 2 years ago.

Following the same procedure, our engineering and traffic experts attacked the last Army engineers' report which recommended the "through" canal. At a hearing before the Board our experts testified against the favorable report and against the project. Apparently such testimony, and perhaps the further investigation demanded by the Board, has resulted in the delay of any sort of a report on the project by the Board from 1947 to the present time. The project seems to be still pending.

Without access to the district engineer's canal report in advance of a final report by the Chief of Engineers, no expert witness could have testified in detail against the project before the Board and Congress might long since have authorized it because of the lack of competent, critical evidence which only an experienced and alert opposition could supply.

In view of our experience with the above projects and with some others, we feel it would be a calamity and a great injustice to the taxpayers generally and particularly interested parties to change the present—or at least the recent—practice of waiting for a full report by the Army engineers on a particular project, with the right of interested parties to examine such report and criticize and oppose it before submitting the project to Congress. Apparently the proponents of West Branch have not been willing to await the new flood-control-navigation omnibus bill before taking away from interested parties their right to know what the details of a particular project are so that they may oppose it if they think advisable. As a matter of fact, under the new practice which proponents seem to have established with respect to West Branch without yet knowing whether the law will be changed, its opponents are not even allowed to appear and be heard. Even if the proposed changes should be adopted by the Congress, they could not act retroactively so as to cure any violations or omissions by the sponsors of West Branch under the laws as they existed on May 23—the date of the hearing—or on the date on which West Branch was approved by the House.

We oppose this West Branch project because our clients and ourselves are convinced it is not intended as a flood-control reservoir because the Youngstown area does not need any additional flood control and does not use nearly all of the flood-control capacity it already has. Instead, we are convinced it is intended to be part of a step-by-step canal construction plan sponsored and urged by Youngstown and some of its larger steel companies. The canal as repeatedly urged, would begin at the mouth of the Beaver on the right bank of the Ohio River and extending up the Beaver and Mahoning Rivers past Youngstown to the top of the divide between the Ohio and Lake Erie watersheds, would follow the course of the Grand River and finally reach Lake Erie at Ashtabula, a distance of 105 miles. Its cost would be about a billion dollars and it is perhaps the most controversial waterway project ever urged upon Congress. Except for the Panama Canal, it is the only navigation project ever to come before the Interstate Commerce Commission, which condemned it.

The Commission condemned the canal project and pointed out its dangers to the railroads and to Youngstown's competitors. It is reported in 235 I. C. C. 755, and we quote the Commission's concluding summary on page 794. It suggests far better than we can why the railroads, competing districts and interests generally outside the Youngstown area oppose the canal and everything calculated by Youngstown to further it. It is to be noted that the Commission was not given the opportunity to make its own investigation but was compelled to accept the report of the Army engineers as a basis for its report. It seems too bad the Commission was not permitted to really get into this project. The summary follows:

"By the way of final summary, we wish to state (1) that permanent rate reductions of the type and magnitude specified in the inquiry directed to us would not be economically justified prior to the construction of the canal for the reason that, on the information now available, these reductions could not be confined to the traffic of those who would be expected immediately and directly

to benefit by construction of the proposed waterway; (2) that a large volume of traffic, at least 56 million tons a year and probably considerably more, would be affected in the event construction of the waterway is carried through, and that the gross revenue loss of the railroads would be about $35 million a year and possibly more; (3) that the railroads can ill afford, now or in the future, to lose revenue in such an amount as the traffic in question produces or will produce; (4) that the railroads have ample time and terminal capacity to carry any traffic that is likely to develop for many years to come; and (5) that the public has a vital interest in the protection of the revenues of an agency of transportation whose services are available the year around and to large and small shippers on equal terms. Motor carriers in a limited area would to some extent be adversely affected by construction of the waterway."

The date of the ICC report was October 3, 1939. That was 17 years ago and since then prices for almost everything, including charges for rail transportation, have practically doubled. Assuming that the loss of traffic to the railroads would be practically the same to date, as the ICC estimated it in 1939, the gross revenue loss would be approximately double, i. e., it would be increased from $35 million to approximately $70 million, and certainly to a minimum of $60 million. Some of the railroads involved could not remain solvent under such a situation.

We oppose the canal because we believe it is intended primarily to force down rail and truck rates principally on bulk commodities which go into the making of steel, without the intervention of the Commission and in defiance of it. It would give the Youngstown district an unnatural and undeserved advantage over all other competitive districts, particularly in the manufacture of iron and steel. Its effect on the whole rail rate structure would be far reaching and to some railroads—disastrous.

Youngstown's plan for a canal, although unsuccessful as a whole, has already partly succeeded in that the Government has been induced to construct two large reservoirs, allegedly for flood control, namely, Berlin and Mosquito Creek Reservoirs, which are being used for the storage of water which is sold and distributed in competition with the local water company, for industrial and domestic use throughout the Youngstown area. No doubt this will continue until such time as the capacities of both reservoirs will be required to provide storage for water needed for the lockage of boats through the many dams on the southerly half of the proposed canal, if and when built. There is presently very little space left in either of these reservoirs to take care of flood-control storage requirements as apparently Youngstown is well aware that it does not need even a substantial part of the entire amount of the flood protection which these reservoirs were designed and ostensibly built to provide. The need for any additional flood-control protection is simply nonexistent.

Since their completion, these two reservoirs have been assigned from time to time by the Army engineers to various canal projects which, in one form or another, have been urged upon Congress, so far without success. Before they were built, reservoirs of similar size and location, with the same names, were designed as integral parts of various proposed canal schemes for the sole purpose of water storage for canal lockages, and their cost was added to the construction cost of the projects of which they were a part. However, since their construction no part of their cost or of their value has been charged against any canal project, although assigned to and treated as part of several such projects. By this means, the cost of these projects has been seemingly reduced by many millions of dollars. In this way, it has been made considerably easier for the Army engineers to reach a finding of economic justification for several of the more recent projects.

A project for the southerly half of the proposed canal as a separate project came before the United States Senate in May 1944, where it was defeated by a vote of 52 to 16. Both Berlin and, I believe, Mosquito Creek Reservoirs had been assigned to that project by the engineers, free of charge. During the Senate debate on the project serious questions were raised as to the propriety of an ouright gift of these reservoirs to the canal project. Questions were also raised—but unanswered—as to why reservoirs built for flood protection, should not be retained exclusively for that purpose instead of being assigned to a navigation project for water storage, because this would be the antithesis of their use for flood control.

There is now pending before the Army engineers awaiting their recommendation, the most recent river-to-lake canal project, which was approved by the district and division engineers, and later heard and considered by the Board

in 1947. There has been no recommendation for or against the project, and it has been referred back to the district engineer for further study and report. This was almost 9 years ago and, so far as we know, the project is still there, perhaps awaiting the action of Congress on a third reservoir necessary for the storage of canal water which no doubt the canal project will acquire absolutely without cost. This could well be the present project—the West Branch Reservoir, which the proponents have stated is a substitute for the proposed—but unauthorized—Eagle Creek Reservoir. The latter has repeatedly been recommended by the engineers as the third necessary canal-water storage reservoir in connection with most Youngstown Canal projects.

West Branch would be well adapted to aid substantially in the operation of any Youngstown Canal for it would be almost as large as the proposed canal-Eagle Creek Reservoir. It would drain into the Mahoning River and hence into a canal at almost exactly the same spot as would a reservoir on Eagle Creek. In the pending through-canal project report, Berlin and Mosquito Creek Reservoirs are made parts of the proposed canal system as 2 of its 3 or more required storage reservoirs, without cost to the project. It is interesting to note that at a hearing on the canal in the fall of 1941, the engineers took the position that Berlin and Mosquito Creek having been authorized for flood control, they could not be used to store canal water and that water must be pumped out of the Ohio River to take care of lockages.

Repeatedly references have been made by proponents to the West Branch project as though it had been previously approved as a flood-control measure. This is not so. The first mention of a West Branch Reservoir was in connection with another much larger so-called flood-control reservoir, allegedly for Youngstown's protection against floods, known as the Mahoning-Grand Rivers diversion project, which after having been approved by the district and division engineers, was turned down by the Board less than 2 years ago.

The flood peril this "diversion" reservoir was intended to protect Youngstown against was not one which so far as is known, had ever occurred in the district but one which might be expected to occur at least by the engineers on the average of once every 1,000 years. No doubt if the district engineer is ever allowed to publish his report on West Branch and it is favorable, it will be because Youngstown will need West Branch's protection when the 1,000-year flood comes along. As the life of West Branch will be in all probability only 50 years, such protection might not be available when needed most.

In any event, West Branch has never been authorized for any purpose and no particular studies have ever been made regarding it, except those now being made by the engineers, which will not be completed until the end of 1956 or sometime next year.

WHY YOUNGSTOWN AND ITS STEEL MILLS WANT THE GOVERNMENT TO TURN WATER INTO THE MAHONING FROM THE PROPOSED WEST BRANCH PROJECT

An article which appeared in the Vindicator of May 18 headed "State Health Chief Hits Mahoning Pollution" is a complete explanation of what is the matter with the Mahoning River water. It is no wonder the steel mills object to its warmth and constant high state of pollution, even though they themselves are among the worst offenders. Admittedly, they dump their industrial wastes directly into the river without any attempt to lessen the nuisance they create. Because of these mill wastes, and the raw sewage which Youngstown and other communities dump into the river, the Mahoning is not much different from what the Chicago River was at its worst.

Only one of the many blast furnaces along the Mahoning has installed a closed circulatory water-cooling system which is something like that used on automobile water-cooled engines. Most modern steel plants have such systems except the majority of the ones in the Youngstown area where the operators must feel it is more economical to cool the furnaces with raw sewage and industrial wastes which pollute the hot river water which they have heated than to install modern systems of cooling, using less than one-tenth of the amount of water required by the old-style furnaces. Obviously, Youngstown much prefers the Mahoning as it is than spending the very considerable amounts which would be required for sewage-treatment plants.

Note what the State of Ohio Health Department says about this, as recorded in the Vindicator. It explains much of the attitude of Youngstown and its Congressman. This comes from the Ohio State health and sanitary officials, not from us, and is official:

"Not one city in that stretch of the Mahoning River has a sewage-treatment plant. Only 9 of 57 industries have adequate waste treatment.

"The State official said that while 44 percent of industries in Ohio with waste problems now have adequate treatment, in this area only 16 percent have.

"Thirty-two percent of the 840,279 city residents in the State still without any sewage treatment live in this 20-mile sector.

"Dr. Dwork declared, 'I am going to say without equivocation that the principal offender is the city of Youngstown. It should have taken the lead. Instead it has fallen behind even its suburbs.'

"He stated, 'Youngstown is the only major city in the State with more than 100,000 population still lacking sewage treatment. This is something out of the Dark Ages. Most other major cities have had sewage treatment for years and now are spending millions to expand. Youngstown still dumps raw sewage into the Mahoning.'

"STILL NO PROGRAM

"Dr. Dwork emphasized Youngstown still does not have finished plans or a financing program. The small amount of progress to date was the result of pressure from the State, he added.

"The health commissioner commender the Vindicator, chamber of commerce, industrial groups, and others for their efforts in urging city officials for years to move faster in the treatment program.

"He related that the Ohio Water Pollution Control Board, since its creation in 1951, has tried to be patient with Youngstown.

" 'Five sewage discharge permits have been granted on the basis of very little progress. At one time representatives of the city had to be called before the board on a violation charge to get them off dead center,' he continued.

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"Speaking of industries, Dr. Dwork said, 'In all fairness it should be mentioned that 10 of the steel plants are involved in pilot-plant studies on the disposal of pickle liquor or acid-iron wastes. This pilot study, which may lead to a solution of a major pollution problem for all the plants, is costing approximately half a million dollars.'

* * * * * * *

" 'There is still no reason why the Youngstown-Mahoning area cannot fall into step by that time,' he concluded.

"R. F. Doolittle, assistant general counsel for the Youngstown Sheet & Tube Co., said steel companies recognize that industrial pollution abatement is necessary in the public interest."

Youngstown and its industries should clean up the mess they have made of their naturally attractive Mahoning River before asking the Federal taxpayers to supply the money to enable them to flush this filth into the Beaver River in Pennsylvania, and so down the Ohio toward the Mississippi. It seems not very different from collecting their sewage and mill wastes in tank trucks and dumping them in the yards of people down the road. The State of Pennsylvania will have something to say about this when the Army engineers comply with the Federal law and give their neighboring State complete information—3 months in advance—regarding the new reservoir. Until they do and Pennsylvania has taken its position regarding the project, congressional approval would be premature.

WHY WAS THE PROJECT RUSHED THROUGH THE HOUSE WITHOUT WAITING FOR THE ENGINEERS' REPORT OR GIVING NOTICE TO THE KNOWN OPPONENTS OF THE MEASURE?

According to the record the only reason given at the remarkable star chamber hearing before the House Flood Control Subcommittee for rushing the West Branch project through without waiting for the engineers' report or giving notice to the opponents, was the alleged situation with respect to the location in the district of a proposed General Motors plant.

Whatever the original situation may have been as to assuring an ample water supply for a proposed GM assembly plant at Lordstown, it had been completely cleared up, an ample and satisfactory water supply had been assured and General Motors had announced its decision to build such a plant prior to May 23, 1956, the date on which the West Branch hearing was held before the House Flood Control Committee. In view of this, it seems surprising that Mr. Kirwan should not have been somewhat better informed before testifying as to the need of

immediate congressional approval of the West Branch project to assure location of the plant in the Youngstown district. Perhaps he had been away from Youngstown and thus missed the informative columns of the Youngstown Vindicator, to which reference will be made. This would hardly be worth talking about were it not the fact that the situation at Lordstown, as Mr. Kirwan erroneously testified it to be, was the thing which triggered the headlong rush to get the project authorized immediately. In any event, both Mr. Kirwan and a prominent member of the House committee stated this was the case.

Mr. Kirwan's feeling about this appears in his testimony at the West Branch hearing. The following is quoted from the record of the May 23 hearings:

"Mr. KIRWAN. Not only the steel mills, but also General Motors want to break ground on the largest, and I mean the largest, assembly plant in the world, which is going to cost $85 million to construct. The only reason why they are not breaking ground now is that they say they cannot break it until after New Year's because of this water situation. They have signed their contracts and have bought the land.

"Here is the largest corporation in the world, gentlemen, General Motors, which has postponed the breaking of ground for 6 months because they have no water until *this thing goes through*, so it will assure them that they can get the water from Berlin Dam and Reservoir (p. 81).

* * * * * * *

"I would like to have this small statement incorporated in the record, and I am thankful and grateful for the privilege of appearing in front of this great committee, and hope when you get to act on it it will be favorable action, because if there was ever a place that needed water, the industry in that valley and the industry coming into that valley which has to serve this Nation needs it. I am speaking there of ground for an $85 million project, *and the only way they can do it is through having this reservoir erected.* That is why I say the Army engineers cannot estimate the value of this project. It runs into billions and not millions" (p 82).

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"Mr. KIRWAN. It is not that I want to take a shortcut or anything like that. *It would be easy to wait another year for the Army engineers*, but here is General Motors, which cannot break ground for this, which will be the largest assembly plant in the world, until after they are assured of this water. It will be an $85 million plant, and that is the only thing holding it up. *They are waiting to see if they are going to get this water. That is the only problem*" (83).

However, at least a week pror to this testimony, the Vindicator was announcing to the world, including Mr. Kirwan, that whatever the water troubles may have been, if any, which had been delaying the location and start of the Lordstown Plant, they were over and done with prior to May 16.

Under the heading "Hail Water Agreement as Long Step Forward," the Youngstown Vindicator of May 16, 1956, stated:

"The peaceful water agreement announced today may go a long way toward bringing more industry into the Mahoning Valley, at the same time *assuring ample public and private water supplies for many years to come.*

* * * * * * *

"The action of the Ohio Water Service Co. is in the best interests of the entire Mahoning Valley and will be of mutual benefit to all. Specifically, the immediate benefit is *to permit the Chevrolet division assembly plant* to be developed in this area."

On the same day, apparently determined that none of its readers would miss the good news, the Vindicator stated the following under the heading "Momentous Water Settlement":

"The Mahoning Valley gets a great lift as the Ohio Water Service Co. sets aside its own interests so that the Mahoning Valley Sanitary District can obtain an additional supply of water and so that Niles, Youngstown, or both *can provide water for the New General Motors plant at Lordstown.*

* * * * * * *

"Meanwhile the people of the Mahoning Valley have reason to rejoice with General Motors today in the celebration it is holding in Warren and Detroit, for the last—and what had appeared to be insurmountable—obstacle to the construction of its Lordstown plant is now out of the way."

Also, in its May 16 issue, under the heading in blackface type an inch high, the Vindicator reported:

"A cooperative agreement, clearing all obstruction to the Berlin-Meander pipeline and assuring an adequate supply of water to the new General Motors plants at Lordstown, was announced this morning by the special Berlin-Meander pipeline committee of the Youngstown Chamber of Commerce.

* * * * * * *

"With the possibility of litigation from Ohio Water Service Co. removed, Niles can proceed with its pipeline to the GM site at Lordstown. GM officials recently announced a 6-month delay in beginning construction of the plants. Earlier they had said a preparation of the site would begin as soon as utility lines, including water and sewer, were available at the location.

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"2. The committe has received assurance from the Ohio Water Service Co. that it will refrain from further litigation against the construction of the Berlin-Meander pipeline and that it will also refrain from taking any action to interfere with the sale of water by Niles and/or Youngstown to General Motors.

* * * * * * *

"The Ohio Water Service Co. controls a potentially substantial source of water for this area in its proposed Yankee Run Reservoir north of Youngstown. The committee feels that it would be in the long-run interests of the community if this additional water source were to be developed. Its development, however, can only be justified and financed if a market is available to it without the threat of subsidized competition from other water sources."

The following is taken from a Vindicator article published on May 17 under the heading "Kryzan Would Ask Funds for Mahoning Dam":

"The mayor also praised industrial and business leaders and the editor of the Vindicator for the 'tireless effort and time given by those vitally concerned with the industrial and economic future of the valley.'

"He was referring to the cooperative agreement which cleared all obstructions to the Berlin-Meander pipeline and assures an adequate supply of water to the new General Motors plant at Lordstown.

"This was announced Wednesday morning by the special Berlin-Meander pipeline committee of the Youngstown Chamber of Commerce."

The last Vindicator article on the subject which we have seen appeared on June 30 under the heading "Legislature O. K.'s Water Sale to GM":

"Youngstown and Niles got the green light Friday from the Ohio Legislature to go ahead with negotiations to sell water to General Motors Corp. for its proposed huge assembly plant at Lordstown.

"In its special session the legislature quickly approved a bill removing the 5-mile limit previously imposed on cities for sale of water to consumers outside their boundaries. The new bill places no limit on the distance."

It is quite clear that for at least a week, and probably longer, before the secret West Branch hearing, practically everyone in the district knew, or should have known and, most of all the Congressman, that an adequate supply of water for Lordstown had been assured. Prior to that time, there was some thought that the Ohio Water Service Co. would object, if necessary in the courts, to the sale at Lordstown in its chartered district, of federally subsidized water from Berlin Reservoir, built and supposed to be operated exclusively for flood control. The Ohio company, most graciously and unselfishly and with a fine showing of public spirit, had withdrawn its objections and agreed not to protest this invasion of its own territory. Presumably, General Motors preferred to use the cheaper Berlin water. In any event according to the June 30, 1956, issue of Business Week, page 24, the Lordstown plant originally planned to be ready by the fall of 1957 will not be finished until 1958 as "the heat is off now."

It should be noted that the Ohio Legislature has recently removed the restriction on the sale of water by municipalities more than 5 miles beyond their borders So, Mr. Kirwan's alleged reason for rushing the project through without a report or notice at the May 23 hearing was utterly invalid and without any factual basis. It was a little inexcusable, too, though there is no suggestion here of intentional misstatements on his part. Of course, we are convinced that the matter was indecently rushed through either because (1) Mr. Kirwan felt the project was so bad the engineers would, of necessity, turn it down if given a chance to complete their investigation; or (2) he feared that if the engineers should approve the project, their report would be so vulnerable that our association would prove it so and make it impossible to get congressional approval. Perhaps, also, he preferred

the committee to hear only his side. If we had been at the hearing we could have cleared up the Lordstown situation on the record so the committee would have known there was no reason to rush the project and that it would be better to follow the prescribed orderly procedure.

The imagined water situation at Lordstown was given by Mr. Kirwan to the House committee as the reason for the unorthodox and illegal rushing procedure in the House, and it was stated as the excuse for such procedure by the chairman of the House Flood Control Committee. The impression which may well have been conveyed by the Congressman's testimony was that water from a West Branch Reservoir would be used at the Lordstown plant. This is not the fact. It would be an impossibility, at least from a cost statement, to get West Branch water over to Lordstown. And besides, the Lordstown plant will require all of its water to be filtered and there has never been a thought or a suggestion of installing a filter plant to purify this water.

It now seems clear that there was no valid reason for haste in bringing this project before this session of Congress for approval and that the method followed in trying to do so was improper and illegal. Therefore it seems advisable to eliminate the West Branch project from the current omnibus bill altogether and let it come up at a future session in the usual and orderly way after the engineers have completed their studies and report.

EXCEPT WHEN YOUNGSTOWN IS BEFORE THE ARMY ENGINEERS OR CONGRESS, IT HOLDS ITSELF OUT AS HAVING MORE THAN ENOUGH WATER FOR EVERY PURPOSE AND NEED

The following are quotations from an attractive booklet recently published by the new industries committee of the Greater Youngstown Area Foundation, which seems to be an official publication of the Youngstown Chamber of Commerce, designed to attract new industry to Youngstown.

The brief quotations which follow have to do with what Youngstown says about its abundance of water for every industrial and domestic need, the superiority of its existing transportation service, the prosperous financial condition of the city, etc. There is not one word in the book suggesting even the remote possibility that Youngstown is endangered in the slightest by floods or that it needs any flood protection over that which the Government has provided already:

"*Sources of local supply.*—Youngstown has three sources of water supply—(1) water of the Mahoning River available free to nearby users; (2) raw water from impounding reservoirs of the Ohio Water Service Co.; (3) treated water from the Mahoning Valley Sanitary District. Between these three sources of supply, the city is able to meet water needs of practically every potential industry, not only as to quantity, but as to both quality and price.

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"*Local water supply ample for a city twice present size of Youngstown.*—Since the two cities sharing this supply, Niles and Youngstown, together utilize but 15 million gallons per day, there is obviously available, on the basis of the present per capita consumption, enough water to serve the needs of more than double the population now dependent upon this utility. This is exclusive of the water potentially available in the Berlin Reservoir.

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"*Unlimited supply of water immediately available to industry at Youngstown.*—Important as these considerations are to plants seeking a new location, the local resources in water, now available without extension or enlargement of supply, are of fundamental importance. Additions necessitating a rebuilding of the collection and distribution system, the acquisition of land for watersheds, the construction of dams and reservoirs, as well as pipelines and conduits often involve years of delay. Many cities showing nominally low water rates are unable to supply anywhere near the quantity of water necessary to serve large industries. An industrial plant dependent to a major degree upon water must consider, therefore, not only comparative water rates in competitive centers, but the quantity of supply immediately available in the city under consideration. A nominally low water rate may unless viewed in this light be both an illusion and a snare.

"Industries locating in Youngstown are assured, not only of fair rates, but of a permanent, uninterrupted service even at times of peak demand."

CONCLUSION

The headlong and seemingly indecent speed, the total ruthlessness and the utter disregard of other people's rights and interests which characterized the handling of the West Branch project by the House committees are hard to understand and difficult to explain. I would think some of the members must have had serious misgivings about the whole thing.

The people I have talked to about this—substantial people with wide business experience and some knowledge of how things are usually done in Washington—find it hard to believe Congress would act in that way. They say they have serious misgivings about the future. It is our first experience with anything of the sort as heretofore we have been treated always with courtesy and consideration by the Army engineers and by all Members of Congress.

Perhaps the knowledge of its sponsors that West Branch is such a bad project that if allowed to follow the ordinary course, it would be turned down by the engineers, may have been responsible for the manner of the project's handling. Or the sponsors may have concluded that even if the engineers might approve the project if given the chance, their report would be so vulnerable as to be indefensible. There have been reports like that on projects we know about.

Perhaps the answer is more simple than that and is more obvious to a more experienced person than I in the ways of politics. I note on page 75 of the testimony of the Youngstown Congressman:

"Of all the projects I voted for—and I voted for every project that ever came before the Congress in the 20 years or so I have been a Member * * *."

And again on page 79, the witness made this statement:

"I sit here this morning before this committee and say I have seen no project in this country—and do not get me wrong because I voted for every one, and if I had to do it all over I would cast my vote for them again—I have seen no project like this one with the amount of money involved * * *."

He could say that again.

What purpose did the witness have in saying not once, but twice, that he had voted for very flood-control project—and I presume he meant to include every navigation project, too—during his 20 years or so in Congress. I wonder how much that has cost the Federal taxpayers already and what effect, if any, those statements were intended to have—and perhaps did have—on the other Members who later were to vote on West Branch.

In connection with his testimony, Mr. Kirwan filed a statement which quoted verbatim a five-page feature article which on May 14, 1956, appeared in that excellent publication which for years has been the chief spokesman for the Youngstown canalers, the Youngstown Vindicator. It is entitled "Must Dump 15 Billion Gallons of Water Here." In view of this, I may be excused for including in my statement several paragraphs from an article which appeared in the Vindicator on June 22, 1956, entitled "Dam's O. K. Called Kirwan 'Tribute'" and the whole of a Vindicator editorial appearing in the same issue. Here they are:

"Representative John Dempsey (Democrat, New Mexico), former Governor of New Mexico, and ranking majority member on the subcommitte, said the project was included in the bill as a 'mark of respect for Mike Kirwan.'

"Dempsey said it is 'a little unusual' to include in the biannual rivers and harbors bill a project on which there is not yet an engineering survey.

"'However, Kirwan and representatives of the Army engineers made such a case for this particular project that we couldn't turn it down,' Dempsey said.

"He added that every member of the 18-member subcommittee has been helped at one time or another by the Youngstown Congressman during almost 20 years in Congress."

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"Other members of the subcommittee also expressed deep regard and respect for Kirwan, who himself is chairman of the Appropriations Subcommittee on Public Works East of the Mississippi.

"In his appearance before the subcommittee earlier this month, Kirwan stressed that the West Branch project would only replace a previously authorized Eagle Creek Dam and Reservoir abandoned because of excessive cost."

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"Kirwan said he was 'glad' to see the project approved by the subcommittee. He also said that possibly legislation will be passed between now and next

year which might reduce local share of the West Branch project, along with many other Federal-State projects.

"Dempsey said the full committee is expected to report out the bill for immediate House action 'Tuesday or Wednesday.'

"'Kirwan knows his way around, and I'm sure this project will be in the bill when it passes the House,' Dempsey said."

[From the Youngstown Vindicator, June 22, 1956]

"KIRWAN'S VICTORY FOR THE VALLEY

"Hundreds of projects, pressed by the 435 Members of the House, clamor for inclusion in the omnibus rivers and harbors bill. Getting a request into the measure is a major achievement, and ordinarily none has a chance unless a final favorable report by the Army engineers supports it.

"An exception in favor of the Mahoning Valley appeared yesterday as a House subcommittee voted unanimously to put into the bill the proposed $14 million dam and reservoir on the Mahoning River's West Branch. The final engineering report on it will not be completed until about October 15.

"John Dempstey, former Governor of New Mexico and now a member of the committee, explains the special favor as 'a mark of respect for Mike Kirwan.' He observed that during Mr. Kirwan's 20 years in Congress he had helped each of the 18 committeemen and they wished to repay him even though the action was 'a little unusual.'

"The project itself is sound, the need for it clear. Mr. Dempsey says he knows of no proposal in the billion-dollar bill which is more meritorious. Yet merit alone does not impel congressional committees to depart from customary procedures. Mr. Kirwan's great influence and his willingness to use it (obligating himself to all the colleagues he dealt with) won this unusual grant for the great industrial district he represents.

"Benefits from the West Branch Dam will extend well beyond Mr. Kirwan's district. The reservoir represents a future water supply for Portage County's cities, Kent and Ravenna. It will help the Warren area as much as that immediately around Youngstown. And as Representative Frank Clark of Bessemer observes, 'What is good for Youngstown is good for the New Castle area' across the Pennsylvania line.

"The project still must win approval from the full committee, the House and the Senate. However, the primary necessity for any improvement is to get it into the rivers-harbors bill, and so Mr. Kirwan has surmounted the highest hurdle. The West Branch Reservoir, like those at Berlin and on Mosquito Creek, will be another monument to his extraordinary career."

By the way—speaking of monuments to extraordinary careers it is interesting to note that the Washington Monument is reputed to have cost $1,500,000; the Jefferson Memorial $3 million; and the Lincoln Memorial $2,940,000; or a total of $7,440,000. This is only a little more than one-half of the reported cost of the West Branch project.

WHAT WE ARE ASKING THIS COMMITTEE TO DO

We ask this committee to recommend that the West Branch project be stricken from the 1956 omnibus waterway flood-control bill as finally passed by the Congress. It has been improperly and we believe illegally included therein and should be deleted. It should not be finally acted upon by the Congress until after it has followed the customary and, I believe, legal procedure after the district engineer has finally reported thereon and any objectors are given the opportunity to review the report and state their objections thereto. It should then be acted upon by the Board of Engineers after a hearing by them on the report, if requested, after which the Chief of Engineers has reported thereon in the usual orderly fashion. Thereafter, there should be an adequate hearing thereon before the appropriate committee or committees of the Congress, after reasonable notice to interested parties who wish to be heard.

Anything less than this would be a departure from the prescribed practice which seems to have prevailed for years, and it is the practice best calculated to protect the interests of all concerned.

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UPPER OHIO VALLEY ASSOCIATION,
Pittsburgh, Pa., May 25, 1956.

HON CLIFFORD DAVIS,
Chairman, Flood Control Subcommittee of House Public Works Committee, House Office Building, Washington, D. C.

DEAR MR. DAVIS: I wired you today as follows:

"Request hearing before your committee for purpose of opposing Representative Kirwan's bill, H. R. 11031, on which hearing was held May 23 without notice to us although notice had been requested."

Some time ago I talked to your clerk, Mr. Charles G. Tierney, about the position of our association with respect to this bill and had requested as much advance notice as possible of any hearing which might be held on this bill. I also wrote Mr. Tierney on May 14 along the same lines, and on May 15 wrote to Mr. Charles A. Buckley, chairman of the Committee on Public Works, making the same request of him. At the time of my conversation and the sending of these letters I was advised the project had not been referred to the Flood Control Committee.

I learned for the first time, in a telephone conversation with Mr. Tierney yesterday, after he had returned my earlier call at about 4 p. m., that a hearing on this bill had been held before your committee the day before. The purpose of my call to Mr. Tierney was to learn whether the time for a hearing had been fixed and whether the bill had as yet been referred to the Flood Control Committee.

The reason we wish a hearing is that we believe the importance of the project is much greater than appears on the face of the bill or from any of the statements made at the May 23d hearing, and that the real purpose behind the bill is to aid a Youngstown canal.

The district in which the proposed reservoir would be located is not in need of flood control as we are advised the percentage of flood-controlled area in the district is probably greater than in any other comparable district. I have just seen a transcript of part of the testimony offered by the proponents at the hearing and believe that it contains at least several erroneous statements regarding important facts. It must be obvious, even from a casual reading of the testimony, that whatever the real purpose of the bill may be, it certainly is not flood control.

Our interest in the matter arises from the fact that for years we have opposed the many attempts of the Youngstown interests to get a canal to or through Youngstown, the most recent of which was an alleged flood-control project much larger than this but in many respects comparable. It was finally turned down by the Board of Army Engineers.

We are of the opinion that the real purpose behind this project is to further the interests of the advocates of that canal. We had hoped to be able to defer reaching a final conclusion regarding the project or taking a definite position with respect to it until after we had had an opportunity of examining a complete and final report of the United States Army engineers. However, this is now impossible and in view of the course followed by the sponsors of the bill, which is certainly unusual and not at all in conformity with the practice and procedure generally followed in connection with comparable projects and seems to be contrary to Federal statutes and Federal decisions, we have concluded that the West Branch project is not intended to provide any necessary or justifiable flood control for the Youngstown district, but instead is intended by its sponsors to be in direct aid of a Youngstown canal.

Within a few days we will file with you and the other members of your committee a much more detailed statement of our position than is practicable in a letter of this kind. If we are to be afforded an opportunity of a hearing, I hope we will receive as much advance notice of it as possible. Your consideration of this request will be much appreciated.

Very truly yours,

JOHN J. HEARD.

Senator HRUSKA. Before you terminate your statement, I am wondering, some reference was made here by Congressman Kirwan to local agreements for local participation. Have such agreements been entered into?

Mr. HEARD. I know of none. We have had that in every proceeding like that and we have had many. This is just one of many that we

have had. There is always a lot of loose talk about how much local interests are going to contribute but when you get down into the actual hearing, based on the record, you will find that the agreements are of the vaguest kind, and the people who should pay for it, like the steel companies, get into this and they think it is a matter that the Government should take care of or the city of Youngstown. So you get to the place where nobody except the Government is supposed to do it.

Senator HRUSKA. You referred to Pennsylvania not having been consulated and no report from that State had been received. What about the State of Ohio?

Mr. HEARD. I do not know about that. Of course, they are directly affected and I do not know whether they know what is going on.

Senator HRUSKA. It would still be reported to them as a State?

Mr. HEARD. Indeed, it should. As far as I know, it has not been so reported and there has been neither opposition or acquiescence, but I can say that I talked to the Governor's office and to the office of the chief of forest and waters of Pennsylvania on last Friday and they knew of nothing of this sort and they were all stirred up about it. They said that if and when they got such a report, they wanted to go into it and they thought they might do something about it. At least they wanted to be heard.

Senator KERR. All right, who is the next witness?

Mr. HEARD. General Breene.

STATEMENT OF MAJ. GEN. R. G. BREENE, CONSULTING ENGINEER, REPRESENTING UPPER OHIO VALLEY ASSOCIATION

General BREENE. My name is R. G. Breene. I live in Dayton, Ohio. I am a graduate engineer. I received my degree from Purdue University in 1917. I served in the United States Army for 29 years, and was retired as a major general for physical disability in 1946. During the Second World War, I was commanding general of the service of supplies in the South Pacific theater; and in that post and others I held in the service, I was principally responsible for problems of logistics and other phases of engineering.

I am registered as a professional engineer in the States of Ohio and Washington, and I am a member of the American Society of Civil Engineers and the American Association of Professional Engineers. I am one of the principals of the firm of Transportation Consultants, Inc., of this city.

I have served the Upper Ohio Valley Association as a consultant since 1947, principally in connection with engineering studies of the long series of Lake Erie and Ohio River Canal projects, including the recent one named the diversion project.

As the attorney for the association has told you, I am appearing here today to express the results of my own efforts, as an engineer, to appraise the merits or demerits of the proposal that the Federal Government shall build a dam and reservoir on the West Branch of the Mahoning River in Portage County, Ohio.

I am necessarily leaving out a lot of this statement, sir, because of the time limitation. It will be filed, however.

Senator KERR. It will be filed and made a part of the record. Are you the only other witness?

Mr. HEARD. We have Mr. John C. Bane, and I would like to reserve 5 minutes for him.

Senator KERR. How much time do you think you need, General?

General BREENE. Sir, if I could have about 15 or 16 minutes, I believe I can get through.

Senator KERR. I will stay with you that long. I do not believe my colleague can stay.

Senator HRUSKA. I will have to leave.

Senator KERR. You take 15 minutes. I will stay through it.

General BREENE. I have a map here which Mr. Heard has already shown you which indicates the various reservoirs now in existence, namely, Berlin and Mosquito Creek, which were built by the Federal Government as flood-control projects during the war, I believe.

Then this large reservoir is a proposed part of the Lake Erie-Ohio River Canal, which was never approved. This [indicating] is Eagle Creek, which was approved as a part of the overall flood-control system many years ago, in the 1930's, and finally, here is the proposed West Branch Reservoir, which is before you now.

Of these reservoirs, Milton Reservoir and Meander Creek were built by the city of Youngstown or the water authorities there for the supply of domestic water.

There are numerous other reservoirs in the area not shown on this map, including those of the privately owned water company chartered to serve this part of Ohio.

Any informed person can see from this map alone that one of the principal problems involved in the efforts to supply a canal between Lake Erie and the Ohio River would be a problem of so supplying a constant quantity of water. You would also observe that these reservoirs would all contribute to that job, as would the four reservoirs which are already in existence.

You would observe that the West Branch Reservoir is, to all intents and purposes, an equivalent of the once proposed Eagle Creek Reservoir, which has been abandoned for reasons which we are not familiar.

We could not avoid the conclusion now urged on you by the Upper Ohio Valley Association that the West Branch Reservoir is well calculated to serve the purposes of the business interests and others who favor the construction of this canal.

However, in preparing to avail myself of this opportunity to appear before your committee, I have tried to ignore this rather obvious relationship between the canal project, which Congress has never approved, and the West Branch Reservoir project, which is presented for your consideration today.

Instead of thinking about the canal, I have tried to judge the West Branch project on its own merits only. My statement is intended to cast light on these two questions: What would be the cost of constructing and maintaining the West Branch Reservoir? What economic profits, if any, would the proposed reservoir produce, and what would be their value?

In short, I have examined the question of economic justification and what I have to say is based on a study of that question and on the principle that Congress should not and will not authorize the expenditure of public money on such an improvement if it appears that the improvement will never pay for itself; that is, if the money it costs is likely to be more than the money it can save.

One particular difficulty of any attempt to evaluate the West Branch project is the fact that nobody knows just what it is. My study has been based, of necessity, on the brief and rather cursory testimony of Major General Itschner of the Corps of Engineers and of Congressman Kirwan at a hearing held on May 23 before the Subcommittee on Flood Control of the Committee on Public Works of the House of Representatives. That is the only public record we have been able to discover dealing with the subject and as far as we know, the only public record on which you can act or refuse to act.

It is true that General Itschner testified and I quote:

> Although the dam and spillway had not been completely designed, enough work has been done so we know the approximate cost will be $14 million.

But, as we and others have often observed in the past, preliminary cost estimates made by the Corps of Engineers and others, even after complete surveys, have often proved much lower than the final expenditures for waterway improvements. Therefore, it is but fair to assume that this $14 million figure is extremely rough, extremely conservative, and almost certain to prove inadequate, if the dam and reservoir are ever authorized and built.

As an indication of the accuracy of the cost estimates submitted to the Congress at the time of authorization, I have here, 41 estimates, as well as final costs of the projects. All are waterways projects of the Corps of Engineers. This must not be considered any criticism of the Corps of Engineers. These are simply facts and the reasons I will not have time to go into.

The total of the estimates submitted at the time of authorization was $350 million rounded. The estimated cost of these 41 projects, when completed, is $1,368,000,000 rounded. Now, if the proposed West Branch project, the cost of which is not estimated by the general, but only approximated, to use the word, is increased by an amount as great as this average, 390 percent, the cost will not be $14 million, but it will be $54,600,000.

There is no reason with which I am familiar to expect this particular project to prove the exception. It appears to us that this $14 million figure presented to this committee is based upon certain calculations which were included for comparative purposes only in the Corps of Engineers' report of February 12, 1954, on the Mahoning-Grand River diversion project, a flood-control project which the Board of Engineers for Rivers and Harbors reported unfavorably in December of 1954.

The 1954 report emphasized the preliminary character of its own figures respecting West Branch by explaining that they were based on quadrangle maps of the United States Geological Survey. These are small-scale maps for this purpose. The scale is about 1 mile to the inch, and the contour interval is 20 feet. The calculations were made without the benefit of subsurface investigations, and of course, as the need for $53,500 survey now underway will suggest, there are no plans or surveys.

In this case, the estimated cost of the West Branch Reservoir projected at that time and on this admittedly uncertain data was $12,226,000. This figure, if advanced to present costs by the index is approximately $14 million. That is the figure we believe to be taken

from the old report on diversion. Even using this figure, the testimony said that the cost-benefit ratio was but 1.14 to 1.

If we had time, we could clearly show, and it is in our report, that this is extremely high. However, I have recently been informed, this morning in fact, that the subcommittee of the Senate Appropriations Committee has said that it would not approve money for projects with a benefit-cost ratio of less than 1:30 to 1.

Mr. Heard has just informed me that I have but 2 to 3 minutes. I regret that I cannot present what I have here, sir, but I would like to present our conclusions and we are ready to stand back of them at any time for questioning.

Our conclusions, from all of the studies in which I have referred today are:

First, that the present system of public and private reservoirs affords Youngstown and the area relatively excellent protection against floods. In fact, it affords more flood protection in terms of percentage of watershed now to Youngstown than will be afforded to Pittsburgh after the 10 dams are completed which have been authorized. If industrial water supply is not now satisfactory, this is due wholly to the failure of the area to furnish sewage-treatment facilities and the reluctance of mills to install closed systems.

One steel mill in Youngstown now is not entering into this discussion and certainly one of the reasons it is not entering into the discussion is that it has a closed system and it has no water troubles.

Two, when the current survey of the project by the Corps of Engineers is completed, under the recent appropriations and a sound report is made, it is impossible to believe that the report can show any economic justification for the West Branch Reservoir. Instead, I am sure, any sound report will show that no flood of the Mahoning River has caused any material damage since the provision of the Berlin and Mosquito Creek Reservoirs, and that no serious damage could be prevented by the West Branch Reservoir.

Three, the only now existing estimates of the cost of the West Branch project and of the benefits it would produce, being those taken from district engineer's report of December 1954, on the Grand River Reservoir project, and used by General Itschner at the House committee hearing of May 23, 1956, were only rough approximations when they were made and are totally unrealistic and unreliable.

Now, if this reservoir were authorized and built, it would, according to past experience in such matters, cost much more than the amount predicted as of today.

Lastly, I believe that there is nothing in the present situation of any interested party which would appear to an engineer, such as myself, to afford any legitimate reasons for hasty approval of this project by the Congress. On the contrary, every engineering and economic consideration suggests strongly that under all present circumstances, this West Branch Reservoir proposal should be rejected here.

I believe, sir, that serious consideration should be given to taking away from the engineers these studies which they make which are so very important and upon which you are dependent and so is the country; and it is my sincere belief, that to short circuit these studies, if I may use such a term to you, to short circuit these studies is a seri-

ous blow to the orderly procedures which are necessary in the appropriation of these huge sums.

I thank you very much, sir.

Senator KERR. Thank you very much, General; and your entire statement will be made a part of the record.

(The statement referred to above is as follows:)

STATEMENT OF R. G. BREENE, CONSULTING ENGINEER, REPRESENTING UPPER OHIO VALLEY ASSOCIATION

My name is R. G. Breene. I live in Dayton, Ohio. I am a graduate engineer. I received my degree from Purdue University in 1917. I served in the United States Army for 29 years and was retired as a major general for physical disability in 1946. During the Second World War I was commanding general of the service of supplies in the South Pacific theater; and in that post and others I held in the service, I was principally responsible for problems of logistics and other phases of engineering. I am registered as a professional engineer in the States of Ohio and Washington, and I am a member of the American Society of Civil Engineers and the American Association of Professional Engineers. I am one of the principals of the firm of Transportation Consultants, Inc., of Washington, D. C.

I have served the Upper Ohio Valley Association as a consultant since 1947, principally in connection with engineering studies of the long series of Lake Erie and Ohio River Canal projects.

As the attorney for the association has told you, I am appearing here today to express the results of my own efforts, as an engineer, to appraise the merits or demerits of the proposal that the Federal Government shall build a dam and reservoir in the West Branch of the Mahoning River in Portage County, Ohio.

This proposal is one of the subjects of section 203 of the bill which is before you today, H. R. 12080. It would be authorized by a paragraph which appears on page 28 of that bill as it was passed and printed by the House of Representatives.

I have a map here which will show you the geographical position of the proposed reservoir as far as we are able to determine it. Nobody knows today just where the dam would be located if it were built, or what kind of a dam it would be, or what lands the reservoir would flood, for the Army engineers have thus far completed no plans for the dam or reservoir. However, it appears to me that, were the reservoir built, it would almost certainly flood the land marked in red on our map.

On this same map you will see how the West Branch and other small tributaries feed into the Mahoning and how that small, crooked stream passes through Youngstown and into Pennsylvania, where it joins the Shenango and the Beaver, and finally feeds into the Ohio River at Beaver, Pa.

You will also see on the map, colored in blue, several other artificial reservoirs, all of which supply water to the Mahoning. Of these reservoirs, the Berlin Reservoir and the Mosquito Creek Reservoir were constructed with Federal funds as flood-control projects. The Milton Reservoir and the Meander Creek Reservoir were built by local public authorities as water-supply facilities, and principally to serve the city of Youngstown. There are numerous other reservoirs in the area, including those of the privately owned water company chartered to serve this part of Ohio.

My map also shows, in red crosshatching, the locations of three other reservoirs which have been proposed in the past as Federal projects but never finally authorized or constructed. These three are the large Grand River Reservoir, the comparably large Shenango Reservoir, and finally the Eagle Creek Reservoir. Any informed person could see from this map alone that one of the principal problems involved in any effort to supply a canal between Lake Erie and the Ohio River would be the problem of providing a constant supply of water. He would also observe that these reservoirs would all contribute to that job, as would the four reservoirs which are already in existence. He would also observe that the West Branch Reservoir is to all intents and purposes an equivalent of the once-proposed Eagle Creek Reservoir. He could not avoid the conclusion now urged on you by the Upper Ohio Valley Association that the West Branch Reservoir is well calculated to serve the purposes of the business interests and others who favor the construction of the Lake Erie and Ohio River Canal.

However, in preparing to avail myself of this opportunity to appear before your committee, I have ignored or tried to ignore this rather obvious relationship between the canal project, which Congress has never approved, and the West Branch Reservoir project, which is presented for your consideration today. Instead of thinking about the canal, I have tried to judge the West Branch project on its own merits. My statement is intended to cast light on these questions:

1. What would be the cost of constructing and maintaining the West Branch Reservoir?

2. What economic profits, if any, would the proposed reservoir produce, and what would be their value?

In short, I have examined the question of economic justification, and what I have to say is based on a study of that question and on the principle that Congress should not and will not authorize the expenditure of public money on such an improvement, if it appears that the improvement will never pay for itself; that is, if the money it costs is likely to be more than the money it can save.

One particular difficulty of any attempt to evaluate the West Branch project is the fact that nobody knows just what it is. My study has been based of necessity on the brief and cursory testimony of Major General Itschner, of the Corps of Engineers, and Congressman Kirwan at a hearing held on May 23 before the Subcommittee on Flood Control of the Committee on Public Works of the House of Representatives. This is the only public record we have been able to discover dealing with the subject and, as far as we know, the only public record on which you can act or refuse to act.

At the hearing on May 23, Congressman Kirwan gave no information about the West Branch Reservoir which could be of any use to an engineer. Instead, he was able only to urge the House committee to approve the project on grounds which now appear to have had no validity from an engineering or economic standpoint. Major General Itschner conceded that the project was, by any ordinary standard, far from ripe for congressional action. The Corps of Engineers had been authorized to make a survey and report on the West Branch Reservoir by a resolution passed by the House of Representatives at the insistence of Congressman Kirwan on January 6, 1955. By May 23, 1956, although the original appropriation had been exhausted, the work of making the survey and preparing the report was less than half finished, and at this session Congress has been asked to appropriate an additional $28,500 to provide for the completion of the survey during the present fiscal year. Thus, in his testimony of May 23, Major General Itschner said that the report of the engineers could not be finished until the latter part of 1956.

It is true that General Itschner testified that "although the dam spillway had not been completely designed, enough work has been done so 'we' know the approximate costs will be $14 million." But, as we and others have often observed in the past, preliminary cost estimates made by the Corps of Engineers, even after complete surveys, have habitually proved much lower than final expenditures for waterway improvements, and therefore I think it fair to assume that this $14 million figure is extremely rough, extremely conservative, and almost certain to prove inadequate if the dam and reservoir are ever authorized and built.

As an indication of the accuracy of cost estimates submitted to the Congress at the time of authorization, I have here 41 estimates, as well as final costs of the projects. All are waterways projects of the Corps of Engineers. The total of the estimates submitted was $350,567,448. The estimated cost of the work when completed is $1,368,969,229. If the proposed West Branch project, the cost of which is not estimated but only approximated, is increased by an amount as great as the average of these—390 percent—the cost will be not $14 million but $54,600,000. There is no reason, with which we are familiar, to expect this particular project to prove an exception.

General Itschner did not dignify the $14 million figure even so much as by calling it an estimate. As a result, you are being asked today to authorize the expenditure of $14 million, without any cost estimate and without any reliable testimony whatsoever of the ultimate cost of this project. I would like to say, however, and I am sure you will agree, that if it is once started, and if the $14 million is spent, this project will be completed regardless of its cost to the Federal Government. Nevertheless, it is hard to imagine why the Senate should be called upon to approve this kind of pig-in-a-poke, under the circumstances of this case.

In contrast, it is easy to understand why no estimate of costs has been submitted or can be submitted at the present time. As far as can be determined,

no core-drill samples have been taken to determine where the dam could safely be constructed. No plans for the dam have been completed. There are no plans for highway or bridge relocations, which must be extensive. None of the property needed for the dam and reservoir has been appraised or even fully identified.

These are all parts of the work for which the Corps of Engineers are now asking (or perhaps have obtained) an additional appropriation of $28,500. They are parts of the survey which was commenced early in 1955 and which is not more than half completed today. Until all this preliminary work is done, no reputable engineer would present a cost estimate.

General Itschner's $14 million figure is evidently based upon certain calculations which were included for comparative purposes in the Corps of Engineers' February 12, 1954 report on the Mahoning-Grand River diversion project, a flood-control project which the engineers reported unfavorably in December 1954. The 1954 report emphasized the preliminary character of its own figures respecting West Branch by explaining that they were based on quadrangle maps of the United States Geological Survey. These are small-scale maps for this purpose; the scale is about 1 mile to the inch, and the contour interval is 20 feet. The calculations were made without the benefit of subsurface investigations, and of course, as the need for the $53,500 survey now under way will suggest, there were no plans or surveys.

The estimated cost of the West Branch Reservoir projected at that time, and on this admittedly uncertain data, was $12,226,500. When adjusted for today's prices, this figure would approximate $14 million. This is the figure used by General Itschner in his presentation to the House subcommittee on May 23 of this year. Its use and the chance of any other data causes us to believe that General Itschner is relying on what was from the beginning an extremely rough estimate, as the sole basis for his support of the West Branch project, and in particular for his calculation that the benefit-cost ratio would be 1.14 to 1.

We have recomputed that benefit-cost figure. Since nobody has any more current information, we have used the data shown in the 1954 diversion report, and evidently used by General Itschner. Due to lack of time and for ease in reference, the figures used in the 1954 report have not been increased to current cost levels. Since the problem is one of mathematical proportions and since we have treated costs and benefits alike, this failure to "factor-up" the 1954 figures cannot affect materially the validity of our conclusion.

The average annual costs of the West Branch Reservoir, using basic cost and maintenance figures from the 1954 diversion report, would be as follows:

1. Estimated first cost	$12,226,500
2. Interest during construction at 5 percent	306,000
3. Gross investment	12,532,500
4. Interest (3 percent of $12,532,500)	375,975
5. Amortization (3 percent interest) 0.886 percent of $12,331,500	109,252
6. Maintenance and operation costs	44,673
Total	529,900

The average annual benefits from construction of the West Branch Reservoir, according to the 1954 diversion report, would be as follows:

	Total benefits, Berlin and Mosquito Reservoirs (existing projects)	Berlin, Mosquito and West Branch Reservoirs	Difference equals contribution for West Branch
Flood control	$2,398,800	$2,704,800	$306,000
Pollution abatement	225,800	288,800	63,000
Industrial water supply	962,500	1,073,500	111,000
Total	3,587,100	4,067,100	480,000

The computed benefit-cost ratio, using the Corps of Engineers' own figures, and dividing the benefits of $480,000 by the cost of $529,900, is therefore not 1.14

to 1 but 0.90 to 1. Since it is less than unity, this figure shows that the project is not economically justified.

That conclusion, of course, would be sufficient to command the rejection of the West Branch project. But that is not the whole story; for if the 1954 calculations be examined, it will immediately become clear that flood-control benefits—and other benefits—were grossly overstated in the 1954 report.

As to flood-control benefits, this can be shown by comparing the 1954 figures with estimates in other Corps of Engineers' reports prepared in recent years on Mahoning Valley projects. As a result of our own studies of various reports and figures, made during several years, we are satisfied that the 1954 report multiplied possible flood damages, and so estimated flood-control benefits.

The Mahoning River was in minor flood on three occasions during the period 1946 through 1952—namely, May 28, 1946, June 3, 1947, and January 27, 1952. Using the flood damage curves contained in the 1954 diversion report, the flood benefits to the Mahoning Valley, credited to Berlin and Mosquito Reservoirs for these 3 floods, amounted to $17,353,000. But an official publication issued by the division office of the Corps of Engineers at Cincinnati, entitled "Water Resources Development by the Corps of Engineers, in Ohio" dated January 1, 1953, credited Berlin and Mosquito Reservoirs with flood-control benefits totaling $3,280,000 from the date of their completion in 1944 until the date of the report in January 1953. We think it conservative to accept the ratio of 17,353,000 divided by 3,280,000 equals 5.3 as a measure of the extent by which flood benefits are overstated in the 1954 diversion report. On that basis we would substitute for the engineers' $306,000 which I gave you a minute ago a flood damage saving of about $58,000.

The 1954 report contained other overstatements. For example, it overstated the prospective benefits from pollution abatement and industrial water supply. A basic fallacy in the calculation was the assumption that these benefits should be based on the increase above the minimum assured flow, for the driest cycle of years on record, rather than on the increase in normal beneficial flow. Thus, the 1954 report completely disregarded the actual average beneficial flows which, for the period of 1946 to 1951, are indicated to be some 45 to 50 percent greater, by actual flow records, than the assured minimum. The principle that average annual beneficial flows should be used for this purpose is one which must be recognized by any competent hydrologist.

Exhibits I and II, attached, are curves prepared from benefit values shown in the 1954 diversion report for various flows. These curves clearly demonstrate that if the increase in beneficial flows, rather than in the assured minimum flows, be used in computing low-flow benefits, the construction of the West Branch Reservoir will not increase low-flow benefits by more than $25,000 for pollution abatement, or by more than $78,000 for all industrial water supply items, except only that of "reduced maintenance, repair, and replactment." This last has been purposely omitted, as we believe the alleged benefits to be so illusory and insubstantial as to afford no basis for giving them any value.

As a result of our extensive investigation of the estimates of benefits in the 1954 diversion report, which are equally applicable to this project—investigations which led to the conclusions I have just given you—we are convinced that the actual benefits from construction of the West Branch Reservoir would be no larger than the following:

Our estimate of additional benefits, West Branch Reservoir

Flood control	$58,000
Pollution abatement	[1] 25,000
Industrial water supply	[2] 78,000
Total	161,000

[1] See exhibit I.
[2] See exhibit II.

Using this realistic $161,000 as the value of annual benefits and the Army engineers' annual cost of $529,900 results in the development of the extremely unfavorable benefit-cost ratio of 0.30 to 1.

It should also be noted that approximately 65 percent of these benefits—that is $103,000 out of the $161,000—are strictly local, in the form of pollution

abatement and in improvements of industrial water supply. Under existing law these things must be paid for by the local municipalities and industries and not by the Federal Government.

Of course, what my figures mean is that the Mahoning Valley and the Youngstown district presently enjoy a relatively high degree of flood protection. Certainly to an engineer it appears that they should. The existing Berlin, Milton, and Mosquito Reservoirs presently control 41½ percent of the drainage area above Youngstown, and by reserving a portion of Meander Reservoir for flood control, this percentage could be increased to 51 percent without any additional construction. Compare this with the presently controlled area of 23 percent above Pittsburgh and 19 percent above Wheeling. Consider it in the light of the fact that even when the master flood-control plan to provide 10 dams above Pittsburgh is completed, probably many years from now, the total area controlled will be only 390 percent, or considerably less than Youngstown has today.

And as a matter of history, bearing out what you could expect from all this, the Mahoning Valley has enjoyed freedom from damaging floods such as occur along the Ohio River.

This can be illustrated in a number of ways. For example:

1. Since 1910, Wheeling has had 33 floods, averaging 6 feet above flood stage, while Youngstown has had 20, averaging 2 feet above flood stage.

2. An examination of the floods occurring at Wheeling and Youngstown during the period of 1910 to 1936, which was prior to construction of the flood-reservoir system above Wheeling, indicates the number of floods at Wheeling would have been reduced approximately 55 percent by the present system of reservoirs, while the number of floods at Youngstown would have been reduced by 85 percent.

Further indications that the danger of floods should never be of serious concern to the Youngstown district are—

(*a*) In their canal report of August 1947, the Corps of Engineers proposed a summit pool elevation at Youngstown of 845 feet above sea level, which is 6½ feet higher than the accepted flood-damage level of 838.5 at Bridge Street in Youngstown.

(*b*) An editorial in the Youngstown Vindicator of June 10, 1943, stated in part: "The only danger from high waters at that time (flood of December 1942) came from swollen Mosquito Creek—now this also is to be dammed, giving the valley what engineers predict will be 100 percent protection in the future." The Mosquito Creek Dam has since been completed.

(*c*) Mr. Purnell, then president of the Youngstown Sheet & Tube Co., and a local authority on waterway projects, said at ground-breaking ceremonies of the Mosquito Creek Dam on July 25, 1943, in part: "We have mentioned how valuable these additional reservoirs (Berlin and Mosquito Creek) are for flood control. I think we all can feel well satisfied that with the proper operation of these reservoirs the Mahoning Valley need not be concerned seriously with any future flood situation."

(*d*) An editorial in the Youngstown Vindicator of July 25, 1943, stated in part: "Now the United States Army engineers tell us that they will have the new dam (Mosquito Creek) completed this fall and the valley should then be free from disastrous floods for all time."

It is a fact that since 1943, although there have been seasons of severely damaging floods in other parts of the country, there has been no significant damage which resulted from any flood of the Mahoning River. This corroborates our conclusion that the West Branch project is not needed to control floods. And if you have been troubled by the great discrepancy between my estimate of annual flood control of only $58,000 and the Corps of Engineers' estimate of $306,000—if you think we are bold in our challenge of the corps' figure, you should observe that the corps itself has published figures on the same point which vary much more widely—that it has not hesitated to challenge or abandon its own benefit figures.

For example, you might compare the flood-damage estimates contained respectively in the 1950 and 1954 reports of the district engineer in the Grand River Reservoir diversion project. As statements of the damage which would result from a recurrence of the 1913 flood at Youngstown under natural stream

conditions and without any protection, the two reports presented the following highly discrepant figures:

Mahoning River Valley

	Report of Feb. 3, 1950	1950 value adjusted to June 1953 costs	1954 report
Industrial	$4,205,950	$5,200,000	$43,881,000
Commercial	310,275	382,000	3,676,800
Residential	551,600	680,000	2,857,700
Agricultural	20,685	25,500	3,600
Utilities	48,265	59,500	205,000
Railroads	1,103,200	1,360,000	2,535,000
Public properties and highways	103,425	127,000	5,783,500
Miscellaneous	551,600	680,000	
Total	6,895,000	8,514,000	58,760,000

The great difference between $8,514,000 and $58,760,000, cannot be attributed to new developments, or explained by any statement that the 1954 figure is based on a more accurate survey of potential damages. The estimates in both reports were presented as firm, and both were intended to support congressional authority for construction of the Mahoning River improvement projects.

This last is not a reflection upon the good faith of the 2 district engineers who obtained 2 such completely different answers to the same question. Instead, it means principally that the engineers' estimates of the kind presented here in support of waterway projects such as this West Branch project are not as reliable as they appear to be. The discrepancy just noticed, between the $8 million and the $58 million, is only one of countless similar cases.

For another example, in an official publication issued by the division office of the Corps of Engineers at Cincinnati on January 1, 1953 the actual costs and benefits of the Berlin and Mosquito Creek Reservoirs after 8 full years operation, were stated as follows:

"The estimated total costs of the projects, all Federal are—Berlin, $6,291,000, completed for use in 1943; Mosquito, $4,035,400, completed for use in 1944.

To date they have provided flood-control benefits amounting to—Berlin, $2,400,000; Mosquito, $880,000; total, $3,280,000."

Now I would like you to compare this statement of actual savings (not only in the Mahoning Valley but all the way to New Orleans) with the comparable figure calculated from the curves given by the 1954 report now relied on by General Itschner.

During the 8-year period from 1945 through 1952, there were 3 significant floods in the Mahoning Valley namely, those of May 28, 1946, June 3, 1947, and January 27, 1952. According to charts in the 1954 report of the engineers, the damages done by these 3 floods in the Mahoning Valley should have amounted to $21,483,000 under natural stream conditions. Under the 1954 report's curves, the existing Berlin and Mosquito Reservoirs were credited with reducing the alleged damages by $17,353,000 as shown in the following table:

	Youngstown gage		Flood damages		Indicated benefits to Berlin and Mosquito
	Equivalent natural gage height [1]	Actual gage height [1]	Natural gage height [2]	Actual gage height [2]	
May 28, 1946	18.50	14.16	8,770,000	1,220,000	$7,550,000
June 3, 1947	13.35	10.51	2,193,000	582,000	1,611,000
Jan. 27, 1952	17.52	13.62	10,520,000	2,328,000	8,192,000
Total			21,483,000	4,130,000	17,353,000

[1] Taken from the 1954 report of the district engineer.

[2] Based on the direct flood-damage curves for Youngstown and Warren districts in the 1954 report, with percentages added in accordance with the district engineer's practice to reflect indirect damages and land enhancement but no percentage added for future development which would further increase the direct benefits by about 17 percent.

Observe the discrepancy between this $17,353,000 of benefits claimed by the 1954 report for the credit of the Berlin and Mosquito Reservoirs for these 3 minor floods in the Mahoning Valley, with the $3,280,000 of benefits for exactly the same thing, shown in the division engineer's report of January 1953 already referred to. The latter report covers the same period of time and includes not only benefits to the Mahoning Valley but also to the Beaver, Ohio, and Mississippi Valleys in addition. One figure is 430 percent of the other; and the percentage would be much greater if the $17,353,000 were increased by the benefits attributed to the Beaver and Ohio Valleys in the 1954 report.

In the face of such facts, I cannot believe that the Senate would take at face value any of the estimates of benefits contained in the 1954 diversion report. Their lack of validity is further borne out by a comparison of flood damages forecasted for a particular flood stage at Youngstown, taken from charts in the 1954 diversion report, with what were actually reported in the local newspaper when a flood of that magnitude occurred. Since the Vindicator, the principal local paper, has been a most consistent and ardent advocate of all waterway projects recommended for Youngstown by the Corps of Engineers, and has missed no opportunity to trumpet the alleged need for additional flood control in the Mahoning Valley, it may be presumed conclusively that this newspaper has not played down any flood damage which has in fact occurred in the Mahoning Valley. On this subject the files of the Vindicator are revealing.

Take, for example, reports concerning the flood of January 25, 1937, conceded to be the highest since 1913. During that flood the river crested at 14.92 feet at Youngstown and 8.06 feet in Warren. According to the district engineer's 1954 flood-damage curves for Youngstown and Warren, damages from a recurrence of this flood would amount to about $3,970,000. One would expect to find quite an account of such a flood in the Vindicator. But what do we find? The issue of January 25 carried this headline: "Record flood on Mahoning drives out families—Damages stores—Industries appear safe."

The text of this issue included the following: "Sheet & Tube reported that safety measures resulted in temporary suspensions of open-hearth plant, principally because of the backing up of sewers. Republic Steel Corp. banked No. 4 furnace at Lansingville plant for 1 night as a safety measure, and closed a plate mill, account water backing up in motor pits, but operations were ready to resume later in the day." This was no disaster. Inconvenience, yes; but not much more.

Of the 1937 flood, the Vindicator further reported: "A crest at Carnegie Ohio Works of 15 feet, which is 9.7 feet higher than the crest of the March 1936 flood; no danger anticipated at either their Ohio or McDonald works; Ohio Edison plant at Lowellville not affected; Crab Creek again flooded basements of houses and reached first-floor level at the Youngstown Boiler & Tube Co. plant; East Federal Street had some wet cellars; the Bancroft Avenue School Building along Mill Creek sustained some flood damage." All of this is far from a flood of disaster proportions.

This same issue contained many pictures of the contemporaneous flood along the Ohio River, but the local flood scenese were of houses still inhabited and of a railroad with water just over the ties, but not over the rails.

There is no record of any serious damage done by the Mahoning River by this flood, which did much damage along other waterways early in 1937. The only damage reported in the Youngstown district occurred from flooded small tributaries, including such things as the flooding of basements along Crab Creek, damage to the plant of Youngstown Boiler & Tube Co., also located along Crab Creek approximately one-half mile upstream from its mouth, and damage to Bancroft School located in the vicinity of Mill Creek upstream from Idora Park and some 3 miles from the Mahoning River.

Following this same line of investigation, we have examined the Vindicator accounts of what were the five greatest floods in the Mahoning Valley since 1913. It is very evident that damages from these floods have been limited almost wholly to the flooding of basements by the overflow from tributary streams, or the backing up of water in inadequate sewer systems. This is a kind of flood damage which will continue to occur regardless of the degree of flood control in the Mahoning River proper. The specific references to damage done by the Mahoning River concern the flow of water into a few store basements on Bridge Street in Youngstown, the basements of homes in the Flats at Warren, the motor pits of the Republic Steel Co. bar mill, and the pits under the open-hearth furnaces of the Youngstown Sheet & Tube Co.'s Campbell plant.

In short, from the historical record, it is plain that the total damages which have resulted from floods of the Mahoning River proper, in 43 years since 1913, have been trifling; and that the damage curves used by the district engineer, indicating that these damages should have run into many millions of dollars, are examples of the ridiculous results which can come of a too credulous reliance upon imposing graphs and tables.

One other matter which deserves the attention of an engineer in my position here, is the assertion that the temperature of the Mahoning River at and below Youngstown is intolerably high. Congressman Kirwan voiced this idea at the hearing before the House committee on May 23, 1956, and it is a familiar one which has been advanced determinedly by the Youngstown advocates of the canal and Mahoning flood-control projects and the Vindicator as their spokesman.

There was a time, it is true, when the temperatures of the river were excessive, but since the flow has been increased by the operation of the Berlin and Mosquito Creek Reservoirs the complaint has lacked any real force, as I think our studies will convince you.

The summer and fall of 1953 was an extremely dry period. During this period, industrial activity was at a very high level. These are the circumstances to create a condition of higher than average temperatures in the Mahoning River. But the 1953 annual brochure of the Youngstown Chamber of Commerce, in reporting on the Mahoning-Grand River Floodway and Reservoir, stated in part: "* * * The water week as determined by the United States Corps of Army Engineers, which ended October 21, 1953, was the 20th consecutive week during which the temperature of the Mahoning River at Youngstown averaged between 93° and 100° F. The Youngstown water temperature averaged 35° higher than the natural river water temperature at Levittsburg, Ohio. The daily flow at Youngstown during this water week averaged 257 million gallons against a daily pumpage of 1,537,435,000 gallons showing that the water had been reused upward of six times. A river water supply such as we now have in Youngstown is intolerable."

No doubt this sounds like a formidable complaint. However, temperatures of the range specified—between 93 and 100° F.—are common in river waters in the summer, particularly in steel producing areas in which river water is used to cool manufacturing facilities and then discharged back into the stream.

The Monongahela River at Pittsburgh is a much larger river than the Mahoning. Its drainage area is eight times that of the Mahoning at Youngstown. There is also a heavy concentration of industry along the Monongahela's lower reaches. We have records of the temperatures of the Monongahela River near the Point at Pittsburgh, several miles below the nearest steel plant, taken for part of the 20 weeks' period referred to in the complaint of the Youngstown Chamber of Commerce, just quoted, namely, from June 16 through September 15, 1953. The average monthly temperatures were—June 16 to 30, 89° F. The weekly averages for this same period varied from 87° to 93° F., and in individual weeks exceeded 90° during each of the months examined.

If you will compare these averages of 87° to 93° F. for the Monongahela River at Pittsburgh with those of 93 to 100° F. reported by the Youngstown Chamber of Commerce as prevailing in the Mahoning at Youngstown during this same period, you will see that there was a temperature differential of only 6° or 7° between the 2 rivers during the summer and fall of 1953. I think you will see also that the temperatures in the Mahoning are not nearly the oddity the public has come to consider them to be, and that the steel plants located above Youngstown very probably enjoy the use of cooler water than do steel plants along many parts of the Monongahela River. The impression of intolerable water conditions in the Mahoning River at Youngstown, now firmly planted in the minds of the public, is an illustration of the power of the press to inculcate errors through their constant repetition in large type.

In your judgment of this matter, you should keep in mind the fact that the present rather extravagant use of the Mahoning River water to cool steel-manufacturing equipment shows of itself and beyond any question that the present supply of water is adequate for the purpose. When they find that they have overtaxed the natural supply, the Youngstown steel manufacturers can install their own water-cooling equipment. This has been done by large steel works in many parts of the country, and at one of the larger works in the Youngstown district.

Finally, in the course of our study of the facts of this matter, I have noticed the peculiar position of the question of local contributions. In his testimony of May 23, 1956, General Itschner appeared to assume as a matter of principle that

the local interests should be called upon to pay for that part of the West Branch project not derived and justified by the need for additional flood control. To be specific, General Itschner said:

"Local interests would be expected to contribute for the values which they receive from the low-flow augmentation and they have indicated they are willing to contribute the amount required to compensate the Federal Government for this portion of the project. We do not know at this time how much that would be, but it would be somewhere in the vicinity of 40 to 60 percent of the entire cost of the project, which I stated was about $14 million."

On the basis of General Itschner's estimates of benefits, this would distribute the benefits of the project as follows, as between Federal flood control and non-Federal other purposes:

General Itschner's estimates of benefits

	Amount	Percent
Federal: Flood control	$386,000	59.6
Local:		
Pollution control	78,000	
Industrial water supply	174,000	
Improved land use	10,000	
	262,000	40.4
Total	648,000	100

This would mean in turn that under the statutes and the regulations of the executive branch of the Government, and under General Itschner's formula which seems to echo the statutes and regulations, the project should not be authorized unless and until the "local interests" have committed themselves to pay at least 40 percent of its cost.

I say "at least" deliberately, of course, because I am convinced that there is no economic justification for the West Branch Reservoir as a Federal project. Problems of sewage disposal and local water supply have thus far been left for solution by the local people. But in all the records I have seen, there is nothing to show that any local interest is committed to pay any part of the cost of this project.

My conclusion, from all of the studies to which I have referred today, are as follows:

1. The present system of public and private reservoirs affords Youngstown today relatively excellent protection against floods, and a distinctly superior supply of water for all present and prospective domestic purposes. If industrial water supply is not now satisfactory this is due wholly to the failure of the area to furnish sewage treatment facilities and the reluctance of mills to install closed systems.

2. When the current survey of the project by the Corps of Engineers is completed, under the recent appropriations, and a sound report is made, it is impossible to believe that the report can show any economic justification for the West Branch Reservoir. Instead, I am sure, any sound report will show that no flood of the Mahoning River has caused any material damage since the provision of the Berlin and Mosquito Creek Reservoirs, and that no serious damage could be prevented by the West Branch Reservoir.

3. The only now existing "estimates" of the cost of the West Branch project and of the benefits it would produce, being those taken from district engineer's report of December 1954, on the Grand River Reservoir project, and used by General Itschner at the House committee hearing of May 23, 1956, were only rough approximations when they were made and are totally unrealistic and unreliable.

4. If the reservoir were authorized and built, it would, according to past experience in such matters, cost much more than the amount predicted today.

5. There is nothing in the present situation of any interested party which would appear to an engineer like myself to afford any legitimate reason for hasty approval of this project by Congress. On the contrary, every engineering and economic consideration suggests strongly that under all present circumstances, this West Branch Reservoir proposal should be rejected here.

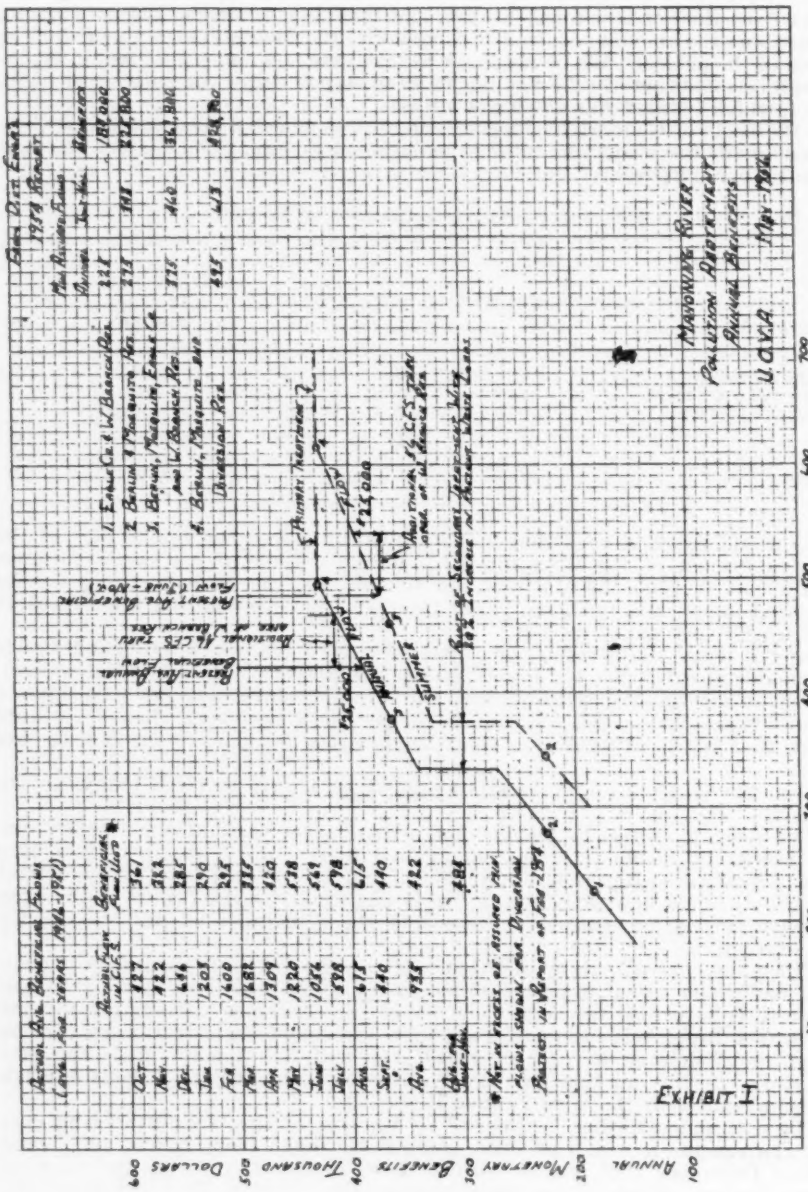
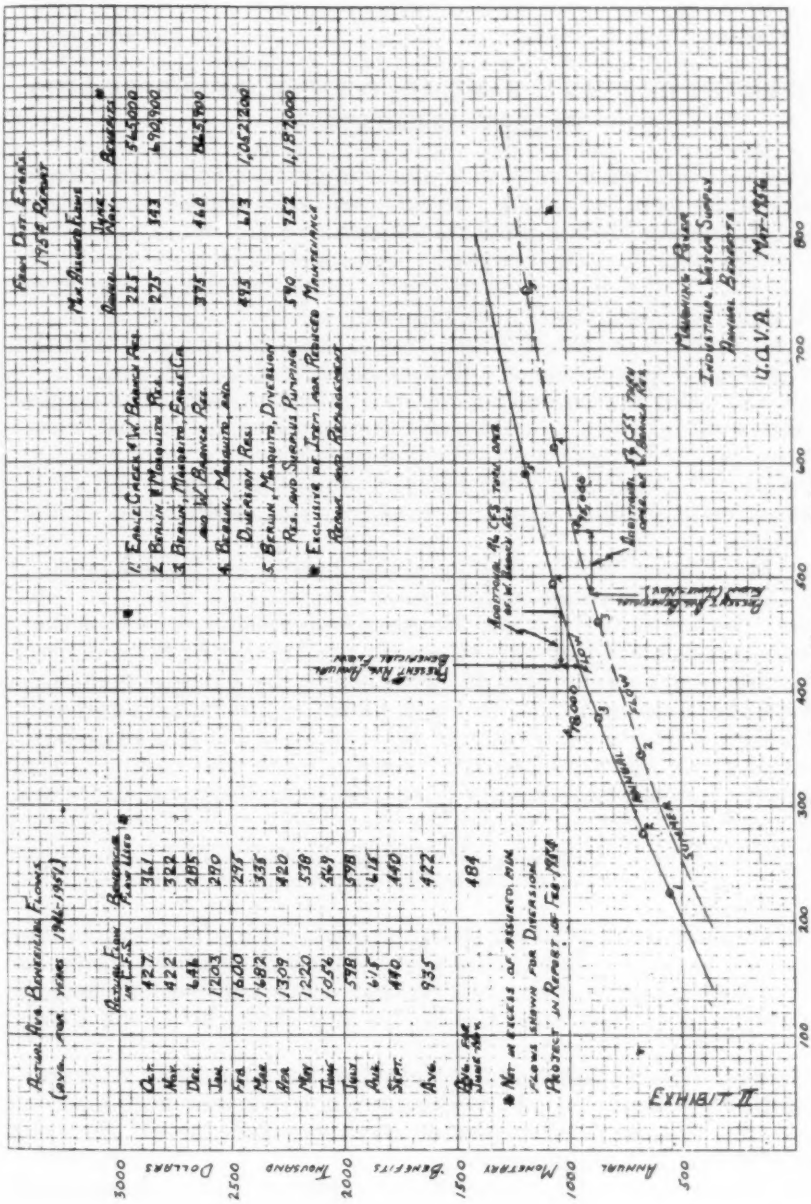


EXHIBIT I
Avg. Annual Flow At Youngstown - C.F.S.
Annual Benefits Thousand Dollars
Monetary Benefits
Mahoning River
Pollution Abatement
Annual Benefits
U.S.V.A.
Nov. 1956


Ave. Annual Flow At Youngstown - C.F.S.
EXHIBIT II
Annual
Monetary Benefits
Thousand Dollars
3000
2500
2000
1500
1000
500
100
200
300
400
500
600
700
800
U.O.V.R.
Mar. 1936

Senator KERR. I am extremely sorry that limitations of time were such that you could not give it all.

Mr. HEARD. You have been very kind and we appreciate it.

Senator KERR. Now, you have another witness?

Mr. HEARD. John C. Bane.

STATEMENT OF JOHN C. BANE, JR., COUNSEL FOR UPPER OHIO VALLEY ASSOCIATION

Mr. BANE. I have here several copies of an extension of Mr. Heard's remarks and several copies of an extension of General Breene's remarks. These are the complete statements.

Senator KERR. They have already been received in the record.

Mr. BANE. I also have several copies of the report of the Interstate Commerce Commission, discrediting——

Senator KERR. I believe that Mr. Heard has already asked that that report be filed with the record and that has been taken care of.

Mr. BANE. I have also several copies of our statement that we filed quite unsuccessfully with the House Subcommittee on Flood Control.

Senator KERR. If you want to file it for the record, you may do so.

Mr. BANE. I think Mr. Heard has offered to the chairman of the committee a copy of the list of the members of our Upper Ohio Valley Association.

Now, Mr. Chairman, I will take about 2 minutes, I think, instead of the 5 that Mr. Heard asked for me.

I think the essence of General Breene's statement here is that there is no occasion for building this reservoir as a matter of flood control. I think that was corroborated rather strongly by Congressman Kirwan here this morning, that the only place left to build a reservoir on land higher than Youngstown in that watershed is this little basin where this reservoir would be. Of course, what that means is that Youngstown is on a rather high part of the territory out there and that is absolutely true, as you can see from the map. It is not down in the valley like Pittsburgh. Therefore, if you dam every stream above Youngstown, there would not be any water at all except what you let through.

There are dams in most of the streams that lie at higher elevations at Youngstown and the result is that there is very little opportunity for any flood to happen and the fact is that there has been no serious flood damage since they built the Berlin and Mosquito Creek Reservoirs.

As General Breene points out in detail, at the time those reservoirs were built, they were hailed by Congressman Kirwan and his constituents and the canal advocates as having ended for all time the danger of floods at Youngstown.

In the House committee, there was no report of the engineers and, as a result, no report of the Bureau of the Budget and, of course, none of the States because there is nothing to give the Bureau of the Budget or the States to consider.

The engineers were called in rather hurriedly at a time when their study of this matter was less than half finished and they probably did the very best they could, but with that, the highest margin of economic justification was 1.14 to 1.0. They did that by charging a

little more than half of the cost of the projects to flood control, a part of it to industrial water supply, and a part to the prevention of pollution of the river. The last two being of course things that the people of Youngstown would normally pay for themselves.

They are not like Senator Stennis' people who live on a thousand dollars per year. If there is any municipality that could pay for its own sewage plant, Youngstown could do it. If you recompute the figures as General Breene has done, staking the reputation of his firm, a distinguished firm of engineers, on the accuracy of his figures, and he said he is ready to stand questions on it whenever it is called for, the economic justification drops back at once from the engineers' own calculations from 1.14 to 1.0 to 90 cents on the dollar or less, and if you take General Breene's computation to the end, you will find that it drops a way below 50 cents on the dollar.

So, it becomes impossible economically to build this particular reservoir. That alone would condemn it, but let me say that with a situation like that, with a project of as doubtful merit as this one, there is no reason why you should abandon the principle of 40 years, that this committee and the Senate would not act in the dark, that they will have a report of the Army engineers before they can accept or reject the project, and that they will have the opinion of the Bureau of the Budget. Also, that they will acquire the affected States to be consulted.

If you adopt this project here today, you have undone all those things and have set a terrible precedent for the future. I do not see any reason advanced today why you should do it.

It is true, at the time he spoke to the House, Congressman Kirwan definitely thought that the General Motors' plant at Lordstown depended on this project. But, it is plainly not true and he abandoned that today.

We urge on you that you amend the bill, as I think it will be passed by the House, to eliminate the section referring to the West Branch Reservoir project.

I thank you very much.

Senator KERR. Thank you.

Are there any questions?

Mr. HEARD. That is our case and we certainly are grateful for the time and consideration you have given us.

Senator KERR. We are grateful to you for bringing us this information.

We will recess until 2:15. I might say it is our hope we will be able to hear all the testimony this afternoon, even though we may be interrupted, if those who are interested have the physical endurance to stay here. The chairman will stay here with you until you get through.

(Whereupon, at 1 p. m., the committee was recessed, to reconvene at 2:15 p. m.)

AFTERNOON SESSION

Senator KERR. The chairman announced this morning that after lunch he would take up the matter in which Senator Dworshak was interested.

I see our good friend Senator Thye is here, too. What is the problem in which you are interested, Senator Thye?

Senator THYE. Mr. Chairman, I have two projects on which I would like to make very brief statements, and I will make them very brief, because I know how very, very pressed you are for time.

Senator KERR. All right, thank you, Senator. Proceed.

STATEMENT OF HON. EDWARD J. THYE, A UNITED STATES SENATOR FROM THE STATE OF MINNESOTA

Senator THYE. Mr. Chairman, I deeply appreciate the kindness and cooperation of you and the other committee members for granting me the opportunity to present this statement concerning the Upper Harbor project at St. Anthony Falls on the Mississippi River at Minneapolis, Minn.

This well-known project would give Minneapolis a first-class harbor above St. Anthony Falls. This project gained the approval of the Board of Review for Rivers and Harbors, Corps of Engineers, at the meeting of the Board on June 19, 1956. Prior to that time, the project had been approved by district and division engineers. This project was first authorized by Congress in the River and Harbor Act of 1937.

Construction of the project was begun in 1948 and the work on the lower dock and dam is 82 percent complete. The cost of work already undertaken and to complete the lower lock and dam is $11,052,000 to the Federal Government and $1,509,000 to local interests. The estimated cost of the work remaining to complete the extension is $21,504,000. Of this amount, the cost to the Federal Government will be $19,893,000 and to the local interests $1,611,000.

Mr. Chairman, I hope that this committee can approve this project. The Appropriations Committee has given consideration to it, and we did agree to make available $400,000 for this year's appropriation that the engineers might proceed with the project as to installations below the St. Anthony Falls, because they are 82 percent complete.

Real river navigation will not serve the real purpose until such time as the locks are in and we are able to originate above the falls and raise up to the real heart of the business section and the industrial section of Minneapolis where we have sufficient land to make possible a dock. Below the falls you have a very narrow ledge along the river, and it is utterly impossible to make a harbor to serve any shipping on that ledge for the city of Minneapolis and the regions above Minneapolis, such as the Northwest, going into the Dakotas, for reasons that you couldn't have a harbor facility.

The ledge is too narrow, and if you tried to construct above on the upper regions of that area there, you would be too far above the river and you would have to lift everything to that great height from the river up above the lime rock ledge; so, for that reason, to serve the actual need of river transportation, the lock will have to be put in to permit navigation into the upper regions and to serve the industrial section of Minneapolis.

Mr. Chairman, that completes my statement relative to the St. Anthony Falls project on the Mississippi River.

Senator KERR. At this point, I would put in a statement by Senator Humphrey with respect to the St. Anthony Falls project; also the letter written by you to the chairman of the committee on June 28,

1956, concerning this project, Senator Thye, and also the review report for navigation, St. Anthony Falls, Minneapolis, Minn.

(The matters referred to are as follows:)

UNITED STATES SENATE,
COMMITTEE ON GOVERNMENT OPERATIONS,
July 17, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate, Washington, D. C.

DEAR SENATOR: The Committee on Public Works has now been informed that the Board of Engineers for Rivers and Harbors on June 19, 1956, recommended that the project on the Mississippi River at St. Anthony Falls, Minneapolis, Minn., be completed substantially as originally authorized by the Congress on August 26, 1937.

You will recall that the engineers had been requested to review the project by action of the House Committee on Public Works in August 1954.

An independent survey and estimate of the benefits to be gained from the upper harbor, conducted by the city of Minneapolis and the Minneapolis Chamber of Commerce, based on new information received from grain, coal, and mineral aggregates shippers and consumers in the area, reported this year a benefit-to-cost ratio of 1.55 on the entire project, and 2.53 on the work remaining to be done on the project. Firm estimates by representatives of the Minneapolis Grain Exchange, the city of Minneapolis, and the Minnesota Motor Transportation Association arrived at a predicted annual movement of grain through the upper harbor of a million tons. Similar estimates by coal users and shippers produced the figure of 830,000 tons of coal annually. The city engineer of Minneapolis, charged with the operation of a tremendous street improvement and highway program for the next 15 years, estimated that 672,000 tons of sand and gravel would be brought in through the upper harbor at an annual saving of over $500,000. In all, more than 3 million tons per year would be benefited by the harbor.

My own study of the upper harbor, over a period of 10 years, convinces me that the 2.53 benefit-to-cost ratio is by far the more realistic figure. Nevertheless, the engineers have reviewed the project favorably, and have recommended completion, finding a favorable ratio of 1.03.

I wish to point out to the committee that the Board of Engineers, in arriving at its benefit-to-cost ratio, disallowed 50 percent of the estimated tonnage of grain which the most informed men in the grain business had calculated—a million tons annually to be benefited by the upper harbor of Minneapolis, otherwise known as the St. Anthony Falls extension. Thus, the estimate of the engineers must be considered as extremely conservative.

The lower lock and dam of the St. Anthony Falls extension are now over 82 percent complete, with probable completion sometime in the fall of this year. The next step—the construction of the upper lock and dam—should be undertaken without delay.

I urge the Committee on Public Works to take affirmative action on a resolution expressing the approval and authorization of the Congress for the necessary work to complete the upper lock and dam and asosciated construction of the St. Anthony Falls extension.

I would appreciate it if this letter might be made a part of the record of the hearing on the St. Anthony Falls extension.

Kindest personal regards.

Sincerely yours,

HUBERT H. HUMPHREY.

UNITED STATES SENATE,
COMMITTEE ON APPROPRIATIONS,
Washington, D. C., June 28, 1956.

Hon. DENNIS CHAVEZ,
United States Senate, Washington, D. C.

DEAR SENATOR CHAVEZ: I am writing you in an effort to expedite approval by your committee of the upper-harbor project at St. Anthony Falls, Minneapolis, Minn.

This well-known project would give Minneapolis a first-class harbor above St. Anthony Falls. This project gained the approval of the Board of Review for

Rivers and Harbors, Corps of Engineers, at the June 19 meeting of the Board. Prior to that meeting the project had been approved by the district and division engineers. The project was first authorized by Congress in the River and Harbor Act of 1937.

Construction of the project was commenced in 1948 and the work on the lower lock and dam is 82 percent complete. The cost of work already undertaken and to complete the lower lock and dam is $10,602,800 to the United States and $1,508,800 to local interests. The estimated cost of the total project is $29 million to the United States and $2,977,500 to local interests.

Under normal procedures your committee would not consider this project until the Bureau of the Budget had reviewed the project and approved it. However, in this case time is of the essence. It is necessary that we obtain a supplemental appropriation for this project before the present session adjourns so that work of the remaining portion may continue without interruption.

In view of the approval granted by the Corps of Engineers, the authorization for the project in the act of 1937, and the urgency of time, I hereby request that your committee take immediate action to approve this project so that we might appropriate funds before adjournment.

Your cooperation in this request is greatly appreciated.

With kindest personal regards.

Sincerely yours,

EDWARD J. THYE,
United States Senator.

REVIEW REPORT FOR NAVIGATION, ST. ANTHONY FALLS, MINNEAPOLIS, MINN.

Location.—Is located in the north central portion of Minneapolis on the Mississippi River.

Report authorized by.—House Public Works Committee resolution, August 17, 1954.

Existing project.—The project, as authorized by the River and Harbor Act approved August 26, 1937, provides for an extension of 4.6 miles of the 9-foot channel above St. Anthony Falls to the Soo Line Railroad bridge in north Minneapolis.

Plan of recommended improvement.—Extend the project above the lower Northern Pacific Railway bridge in Minneapolis to delete the existing provision for a bridge clearance of 26 feet above the estimated 40,000 cubic feet per second stage, and to provide for such vertical clearance at bridges as in the discretion of the Chief of Engineers may be advisable. That construction of the authorized extension in the vicinity of St. Anthony Falls, with the project modified as above, be completed.

Estimated cost (June 1956 prices)

	Federal	Non-Federal	Total
Remaining cost	$19,893,000	$1,611,000	$21,504,000
Total project cost	30,945,000	3,120,000	34,065,000

Local cooperation.—As stipulated in the existing project.

Project economics (remaining work)

Annual charges	$1,018,000
Annual benefits	1,050,000
Benefit-cost ratio	1.03 to 1

ST. ANTHONY FALLS PROJECT

STATEMENT OF DOSWELL GULLATT, ON BEHALF OF THE ASSOCIATION OF AMERICAN RAILROADS

Mr. GULLATT. I am Doswell Gullatt. I am with the Association of American Railroads. I would like to offer some testimony for about 2 or 3 minutes in opposition to the St. Anthony Falls project.

Senator HRUSKA. It will be received at this time and placed in the record at that point subsequent to the statement by Senator Thye heard earlier this afternoon.

Mr. GULLATT. My name is Doswell Gullatt. I am an employee of the Association of American Railroads in Washington, D. C. I appear in opposition to the St. Anthony Falls project which is on the upper Mississippi River at Minneapoils, Minn., and I wish to present several statements on behalf of the railroads operating in the Minneapolis area. These same statements were previously presented at hearings before the Board of Engineers for Rivers and Harbors.

I will not attempt to brief these statements, but I do wish to outline for the committee the progress of the various hearings held by the Board of Engineers for Rivers and Harbors on the St. Anthony Falls project.

A public hearing was held in Minneapolis on January 16, 1956, at which time railroads operating in that area presented their objections to the findings of the district engineer and the division engineer in their reports. At a subsequent meeting of the Board of Engineers for Rivers and Harbors, a nonconvinced statement was issued. In other words, as a result of the hearing, the Board was not convinced that a satisfactory benefit-cost ratio could be obtained which would justify the completion of the project by the expenditure of some $23 million.

A second public hearing was held on April 24, 1956, in Washington, D. C. After some 6 weeks of further investigation, the Board met and announced that the Board's staff had determined that the benefit-cost ratio for the completion of the project based upon the full cost of approximately $32 million was less than unity, but that the benefit-cost ratio based upon the expenditure of some $23 million, which is the amount required to complete the project, was 1.03 to 1. This is barely in excess of unity.

The slight margin of the benefit-cost ratio as found by the Board of Engineers for Rivers and Harbors for the completion of the project, disregarding the money that has previously been spent on this work, would seem to indicate that great caution should be exercised in authorizing this project and putting it in a status where additional funds might be appropriated for its further construction.

I note that Senator Thye made an appeal for approval of the Minnesota River project today before this committee. This project will compete with the St. Anthony Falls project (the so-called Upper Harbor project for Minneapolis). Completion of the Minnesota River project with its improvement of navigation will take away certain benefits which might have accrued to the Upper Harbor project and thus reduce the benefit-cost ratio for the St. Anthony Falls project below unity.

I would like to urge that the St. Anthony Falls project be disapproved by this committee in view of the indecisive benefit-cost ratio and the questionable value of the project to the development of the Minneapolis area.

I would like to submit a statement which consists of a letter to the Board of Rivers and Harbors by the railroads in the St. Anthony area, and the analysis, which is a detailed analysis of the traffic in the area, which was prepared by the operating railroads operating in the Minnesota area.

Senator HRUSKA. They will be received for the files, except those parts which can be incorporated into the record.

(The matter referred to above follows:)

CHICAGO, ILL., *May 14, 1956.*

UNITED STATES ARMY BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
Washington, D. C.

GENTLEMEN: At the hearing on the St. Anthony Falls navigation project held in Washington on April 24, 1956, proponents claimed that there would be a savings of $0.80 per ton for 700,000 tons of gravel annually received by barge at the upper harbor, if it were built, or in round numbers $500,000 savings per year. The estimate is based on 500,000 tons for ordinary building, street, and highway construction and 172,000 tons for special highway construction on the basis of spending $20 million per year for that purpose.

Practically all concrete is furnished from ready-mix plants. The locations of such plants in the Minneapolis area are shown on the attached map. There are 12 of them, of which only one is close to the proposed upper harbor. Most of the plants, as you will note, are far to the west and south of the upper harbor and located where the great bulk of construction work is going on. That is the direction in which home building and industries are expanding and will continue to expand for a great many years. This territory cannot be served economically with aggregates for concrete moving from the upper harbor. Long transportation distances would be involved and trucks would travel at a snail's pace through two or more miles of congested streets in the vicinity of the upper harbor.

The prediction that 700,000 tons or anywhere near that amount of gravel can be furnished from stockpiles at the upper harbor is not taken seriously by gravel producers in the Minneapolis territory. We have copy of a letter to your Board written by Mr. Charles Klein, dated May 11, 1956, in which he points out that there can be no savings for barge haul of gravel.

There are vast supplies of sand and gravel in the territory contiguous to Minneapolis. It is pointed out in the report that recently opened pits located a distance of 10 miles or more from the city can supply suitable material, and there is no reasonable argument against there being an ample supply for the next 50 years.

The report states that the city bids for 1956 requirements contain one for $2.55 per ton which included hauling to Minneapolis. The report did not point out that delivery was to be as required. The report also did not make mention of the fact that bid of $2.09 per ton was made for supply from a neighboring pit at Osseo and that the accepted bid price was $1.90 per ton. There is just as much reason for using the lower figure of $1.90 as the highest one of $2.55. I attach copies of the advertisement for bids in Finance and Commerce of Minneapolis dated November 17, 1955, and the notice of approved bids in that paper of December 14, 1955.

There is a great deal more to this problem than what has simply been resolved by taking the $1.50 cost at St. Paul, adding $0.25 for hauling by barge and unloading, and subtracting this sum from the unreasonably high assumed cost of $2.55 and thus obtaining $0.80 per ton savings. The material must be moved to the ready-mix plants after it has been unloaded from barge into stockpiles. Mr. Klein has estimated that the average cost of bringing the assumed 700,000 tons to pre-mix plants would be at least $0.60 per ton. Adding $0.60 to $1.75 gives $2.35 which is $0.26 more than the Osseo bid of $2.09. He also points out that there are going to be expenses in connection with space rental for gravel storage and cost of construction, maintenance, and operation of additional facilities which will have to be reckoned with. In the attached copy of the Shakopee Valley News of April 26, 1956, there is an article stating that Mr. Joseph L. Shiely, president of the J. L. Shiely Co., announces plans to acquire acreage near Savage on the Minnesota River for a sand, gravel and ready-mix plant costing about $1 million. No mention has been made in the report under question for cost of providing similar facilities at the upper harbor location.

From the foregoing it is evident that there can be no savings in gravel.

Yours very truly,

H. B. CHRISTIANSON,
Chairman, Zone 7.

COAL

Analysis and investigation of the proponents' presentation on coal, given to the Board at the hearing on April 24, 1956, reveal many serious and misleading statements and illogical or false computations of tonnages and estimated annual savings.

1. Proponents' brief states: "The Northern States Power Co. also has re-examined its probable future consumption and has arrived at a figure of 300,000 tons average annual consumption. (See exhibit C–2.)" Presumably exhibit C–2 is the letter from Northern States Power Co. addressed to the Corps of Engineers dated March 29, 1956.

Taking that statement as a whole, it is obvious that Northern States Power anticipates a consumption of 300,000 tons of coal only if natural gas becomes unavailable to use as a fuel, or only if the Riverside plant installs additional capacity, and only if the Northern States Power Co. Riverside plant operates at full added capacity 12 months of the year burning coal only. These conclusions have been supported in recent discussions with a vice president of Northern States Power Co. concerning its letter. Northern States Power Co. advises that its original 60,000 ton average use of coal was "based on the assumption that we would continue to utilize coal and natural gas in approximately the same ratio that was in effect at that time * * *."

The abnormally cold winter of 1955–56 required a consumption of 137,000 tons of coal.

It is submitted that far more reserves of natural gas are being discovered and pipelines constructed than any similar discovery of coal. Only upon the wildest conjecture can it be assumed that the supply of natural gas to industries in Minneapolis will ever in the future be cut off. It is more likely that the supply of natural gas will continue to increase. Therefore, using the foreseeable rather than the wholly conjectural and unforeseeable as the basis of computation, it would be improper to place coal consumption at the Riverside plant of Northern States Power Co. at more than 150,000 tons.

2. The effect of atomic power at the Elk River plant, the development of which has been authorized by the Atomic Energy Commission within the last few weeks, raises grave doubts as to the future needs at Elk River for coal. A consumption of 250,000 tons 50 years hence cannot be disproved, nor can it be proved. It will be used in the following computations of annual savings on coal. Because it is agreed that at least 200,000 tons of coal can be brought by barge to the present Washington Avenue terminal in Minneapolis, exclusive of the tonnage unloaded from barges directly into cars or trucks, it is reasonable to assume that at least 200,000 tons of the Elk River demand can be supplied from the Washington Avenue terminal at the agreed unit savings of $0.075 per ton. The remaining 50,000 tons, if required, could be obtained from St. Paul at the savings estimated by proponents of 51 cents per ton.

3. The 480,000 tons estimated by four wholesale coal distributors was in no way supported by facts. We do not doubt that these companies would like to look forward to such a huge increase in present coal distribution in Minneapolis, which is less than one-half of this 480,000-ton estimate. However, there is no validity whatsoever in using the difference between all-rail and rail-barge rates from southern Illinois to Minneapolis ($1.31 per ton) to compute savings which are claimed as the result of the construction of the upper harbor. Coal can and is being transported by barge to St. Paul and to the Minnesota River.

Mr. Lester Hague, president and owner of Midwest Coal & Coke Co., a retail coal dealer of Minneapolis, advises that city trucking of coal by 6-ton loads costs $0.63¼ per ton per hour ($0.505 labor, $0.0875 gasoline, $0.005 insurance, $0.04 depreciation). Because of loading and unloading time, he advises that an average round trip within the city of Minneapolis (from a proposed upper harbor coalyard to a consumer, and return) of 15 miles would require 1½ hours, or a trucking cost per ton of 95 cents. He also advises that a round trip from St. Paul Barge Terminal to downtown Minneapolis and return would take about 2 hours, at a cost of $1.26 per ton.

Bay & Bay Transfer Co., 315 9th Avenue North, Minneapolis, have quoted a price of $1 per ton for a 5-ton minimum to any location within Minneapolis or

St. Paul. That same company has also filed with the Minnesota Railroad and Warehouse Commission tariff effective April 30, 1956, MRC No. 2, covering trucking of coal within the State of Minnesota, showing a 25-mile minimum distance rate of $1.60 per ton for a minimum 20-ton truck. Therefore, the only logical unit savings on coal must be computed in the difference of trucking costs from St. Paul to the consumer as opposed to the cost of trucking coal from an upper harbor yard to the same consumer. At most this would be 31 cents.

The proponents have also erroneously stated that barge rates are the same to Minneapolis as they are to St. Paul. Investigation has revealed that Federal Barge Line tariffs show the barge rate from Alton, Ill., and East St. Louis to be $2.15 per ton to St. Paul and $2.22 to Minneapolis, effective January 1, 1956. Rail tariffs from the mines in southern Illinois to the barge terminal loading dock at Alton show a rate of $1.38. The coal shipper also is required to pay a 2-cent dumping charge. Therefore, coal rates by rail, barge, and truck from southern Illinois coal mines to the Minneapolis consumer from St. Paul and Minneapolis are as follows:

	St. Paul	Minneapolis
Rail rate	$1.38	$1.38
Dumping charge	.02	.02
Barge rate	2.15	2.22
Trucking to Minneapolis consumer	1.26	.95
Total	4.81	4.57

NOTE.—Unit savings per ton, $4.81 less $4.57 = $0.24.

4. All of the coal required by Northern States Power Co., whether 150,000 tons or 300,000 tons, can be unloaded direct from barges into rail cars and switched to its Riverside plant. Therefore the unit savings remains at the agreed $0.645 per ton and the proponents' use of the $1.31 unit savings is wholly false.

Therefore, unit savings on coal must be computed as follows: First, using the tonnages, exaggerated as they may be, used by the proponents, and secondly, using realistic tonnages particularly with reference to Northern States Power consumption and cutting the wholesale coal dealers' guesses in half for lack of supporting evidence.

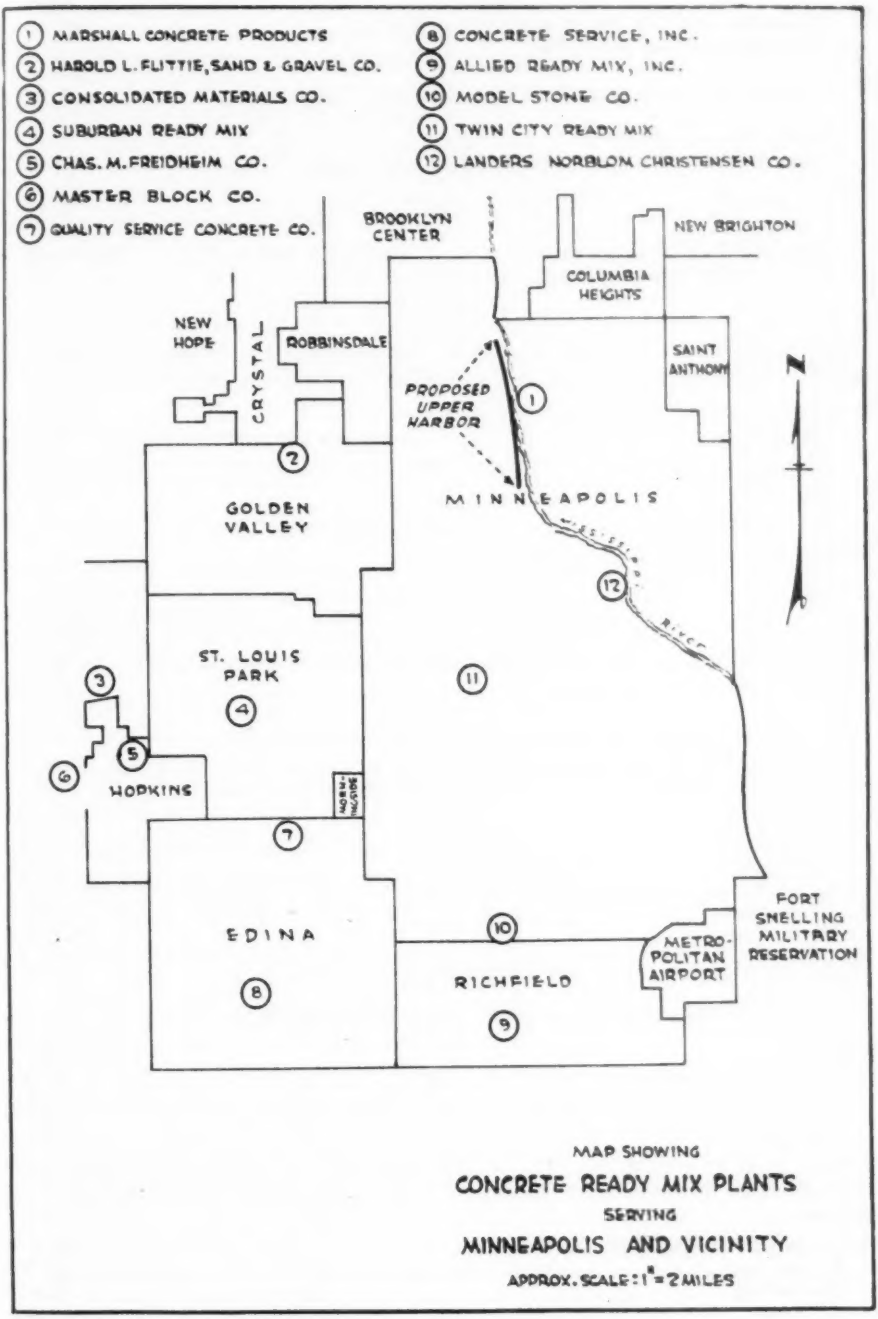
Unit savings on coal

ASSUMED TONNAGES

User or distributor	Tonnage	Unit saving	Annual saving
Northern States Power (Riverside plant)	300,000	$0.645	$193,500
RCPA, Elk River	200,000	.075	15,000
4 companies	50,000	.51	25,500
	480,000	.24	115,200
Total			449,200

REALISTIC TONNAGES

Northern States Power (Riverside plant)	150,000	$0.645	$96,750
RCPA, Elk River	200,000	.075	15,000
4 companies	50,000	.51	25,500
	240,000	.24	57,600
Total			194,850


1 MARSHALL CONCRETE PRODUCTS
2 HAROLD L. FLITTIE, SAND & GRAVEL CO.
3 CONSOLIDATED MATERIALS CO.
4 SUBURBAN READY MIX
5 CHAS. M. FREIDHEIM CO.
6 MASTER BLOCK CO.
7 QUALITY SERVICE CONCRETE CO.
8 CONCRETE SERVICE, INC.
9 ALLIED READY MIX, INC.
10 MODEL STONE CO.
11 TWIN CITY READY MIX
12 LANDERS NORBLOM CHRISTENSEN CO.
BROOKLYN CENTER
NEW BRIGHTON
COLUMBIA HEIGHTS
NEW HOPE
CRYSTAL
ROBBINSDALE
SAINT ANTHONY
PROPOSED UPPER HARBOR
MINNEAPOLIS
GOLDEN VALLEY
ST. LOUIS PARK
HOPKINS
EDINA
RICHFIELD
METRO-POLITAN AIRPORT
FORT SNELLING MILITARY RESERVATION
N
MAP SHOWING
CONCRETE READY MIX PLANTS
SERVING
MINNEAPOLIS AND VICINITY
APPROX. SCALE: 1" = 2 MILES

Coal rates via rail and barge via Alton, Ill., and East St. Louis

Origin:	Rail rate per ton
Belleville and Du Quoin district to river	$1.35
Plus unabsorbed dumping	.02
Total	1.37
South Illinois to river	1.38
Plus unabsorbed dumping	.02
Total	1.40
Western Kentucky to river	1.81½
Plus unabsorbed dumping	.02
Total	1.83½

Dockage at Alton and East St. Louis is 17 cents per ton, of which 15 cents is absorbed by barge line, balance of 2 cents assessed against consignee.

Barge rate from Alton and East St. Louis to—	Per ton
La Crosse	$1.95
Red Wing	2.06
St. Paul	2.15
Minneapolis	2.22
Black Dog	2.22

Barge rate is for alongside dock delivery.

Coal rates via rail and barge via Ford, Ill.

Origin:	Rail rate per ton
Belleville and Du Quoin district, origin on Missouri Pacific only	$0.74
Plus unabsorbed dumping	.02
Total	.76

Dockage at Ford, Ill., is 17 cents per ton, of which 15 cents is absorbed by barge line, balance of 2 cents per ton assessed against consignee.

Barge rate from Ford, Ill., to—	Per ton
La Crosse	$2.25
Red Wing	2.36
St. Paul	2.45
Minneapolis	2.52
Black Dog	2.52

Barge rate is for alongside dock delivery.

Coal rates via rail and barge via Grand Rivers, Ky.

Origin:	Rail rate per ton
Western Kentucky origin on I. C. only	$1.00
Plus unabsorbed dumping	.02
Total	1.02

Dockage at Grand Rivers, Ky., is 17 cents per ton, of which 15 cents per ton is absorbed by barge line, balance of 2 cents per ton is assessed against consignee.

Barge rate from Grand Rivers to—	Per ton
La Crosse	$2.70
Red Wing	2.81
St. Paul	2.90
Minneapolis	2.97
Black Dog	2.97

Barge rate is for alongside dock delivery.

Coal rates via rail and barge via Grand Rivers, Ky.—Continued

All rail freight rates per ton on coal to Minneapolis from:	*Per ton*
Du Quoin, Ill.	$4.81
Belleville, Ill.	4.81
Southern Illinois	4.91
Western Kentucky	5.26

Rates include all X-parts increases.

Coal receipts, Minneapolis

[In tons]

Year [1]	Rail	Barge	Year [1]	Rail	Barge
1935	1,386,263	47,232	1951	493,281	190,729
1940	1,293,100	206,060	1952	323,086	132,942
1947	1,042,685	99,296	1953	161,024	323,999
1948	1,173,242	104,256	1954	156,835	165,077
1949	750,491	129,809	1955	141,060	194,625
1950	874,918	155,653			

[1] No record of rail receipts kept during war years.

Source: Rail receipts authority Minneapolis Traffic Association. Barge receipts authority Corps of Engineers, St. Paul District.

Coal for Northern Power Riverside plant, Minneapolis—rail-barge-rail

Coal is loaded direct from barge to railroad car and does not come to rest on docks, at following charges:	*Per ton*
Dockage and handling	$0.25
Special charge to apply on per diem charges on railroad car	.20
Switching charge from dock to riverside plant	.286
Total	.736

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC RAILROAD CO.,
Minneapolis, Minn., June 6, 1956.

Re St. Anthony Falls navigation project.

Col. H. S. MILLER,
Board of Engineers for Rivers and Harbors,
Washington, D. C.

DEAR COLONEL MILLER: I acknowledge receipt of your airmail special-delivery letter of June 5, 1956, and thank you and Mr. Henry N. Muller for your kind remarks.

I enclose a memorandum of my notes taken during Mr. Muller's conference with Mr. Starr Killen, in charge of coal transportation and sales for Cargo Carriers, Inc., and Mr. Ralph Wright, of the same company, with reference to molasses transportation and consumption. I also enclose some information I have been able to obtain concerning the transportation of fertilizer.

It is my understanding that Messrs. R. C. Woodworth, R. B. Parrott, and John Cole, of Cargill Inc., will prepare an answer to your letter of May 29, 1956, concerning grain, and therefore I do not feel qualified to comment further on the conference on grain. During most of this conference I was attempting to arrange an interview for Mr. Muller with Mr. L. E. Grafft, of the American Bridge Co., and Mr. Muller was able to discuss inbound shipments by barge of fabricated steel with Mr. Grafft by telephone.

It was a pleasure to have been of assistance to you and Mr. Muller, and I trust that the conferences which were arranged and the additional information gathered will prove of assistance to you, your staff, and the Board of Engineers in consideration of this project.

Sincerely yours

STUART W. RIDER JR.

COAL

Mr. Killen stated that although the Elk River plant received 70,000 to 75,000 tons of coal during 1955, the claim that this plant would eventually require 250,000 tons may well be true, assuming that the plant expands at the rate it has in the first 7 years of its history.

However, he pointed out that the 300,000-ton estimate for the Northern States Power Riverside plant is greatly exaggerated, in his opinion. He stated that the Northern States Power was expanding its production at its Black Dog plant on the Minnesota River and at its High Bridge plant in St. Paul, and that the Riverside plant in North Minneapolis has been a standby plant and will continue to be a standby plant. He further stated that the Riverside plant uses gas as its primary fuel and he does not believe there is any reason to believe that it will not continue to so use gas.

As to the tonnage estimates by the 4 companies named on the third page of proponents' brief, where an annual tonnage of 480,000 tons is given, Mr. Killen thought that figure was very substantially exaggerated and constituted an apparent duplication of tonnage figures. He stated that last year the Elk River plant received 70,000 to 75,000 tons of coal at the Washington Avenue terminal, Northern States Power Riverside plant about 65,000 tons, and the University of Minnesota 30,000 tons. He says that an additional 65,000 tons is consumed generally throughout Minneapolis but apparently doubted whether the general consumption would materially increase in the future.

He stated that Republic Coal & Coke Co. brings coal up to the Twin Cities, sells it to North Western Hanna, who distributes it. Last year he believed North Western Hanna handled about 25,000 tons, and Carnegie about 25,000 tons. He seriously questioned that there was any substantial tonnage of coal to be expected to be consumed in the future.

As to unit savings, he pointed out that it cost $1.02 per ton for his company to truck coal from St. Paul to Elk River and it cost 85 cents a ton to truck the same coal from Minneapolis to Elk River. According to the actual figures of his company's coal operation, it cost $1.15 per ton to truck coal from Port Cargill to a Minneapolis consumer, and based on their cost figures it would cost at least 75 cents per ton to truck the same quantity of coal from an upper harbor location to a downtown Minneapolis consumer.

He also pointed out that the Elk River powerplant was close to a competitive location with reference to transportation of coal from Minneapolis or from the head of the Great Lakes at Duluth. There is practically no difference in cost to that plant of coal from Duluth by rail or from barges at the Twin Cities.

Mr. Killen stated that Port Cargill and other Minnesota River locations could handle southern and western Minnesota and any points in Minneapolis, that St. Paul barge terminals could serve St. Paul with coal, and there would be very little other demands for coal which could be served any more economically from a north Minneapolis location. He agreed that 50 acres would be required to store 1 million tons of coal and he didn't know where such acreage existed in north Minneapolis along the river.

Mr. Killen was asked to set down his conclusions in written form, and Mr. Woodworth stated that Mr. Killen's report would be included in the letter also covering molasses and grain.

MOLASSES

In response to a question as to present and future demand for molasses, Mr. Ralph Wright, of Cargo Carriers, Inc., stated that molasses is used by the feed manufacturer as a preservator for silage, and is added to other feeds by the farmer to feed cows. It is used generally in liquid form, but can be put in a dry form for easier handling in smaller quantities. Even in the dry form, however, it is still used as feed.

There are three molasses companies serving Minnesota, Industrial Molasses Co. located at Port Cargill on the Minnesota River, Pacific Molasses Co. and one other. Industrial Molasses Co. is the only company that receives molasses in substantial quantities by barge on the Minnesota River. Although there are sites available for receipt of molasses by barge at St. Paul and at the Minneapolis Washington Avenue Terminal, the demand has been such that no other company has gone into the molasses business. Mr. Wright believes that this is the best answer to the question of demand for molasses in Minnesota. He believes that this demand can adequately be served by the existing company on the Minnesota River. He stated he did not think construction of the upper harbor would have any effect on the use of molasses.

He stated that molasses can be economically distributed by truck within a radius of 125 miles from the barge terminal. Molasses in this part of the country is supplied from barge terminals by truck from Dubuque, Iowa, Chicago, Ill., and Port Cargill. 125-mile radius circles can be drawn from the above

three cities showing the area economically served with molasses by truck. At points not within these circles, molasses can be more economically supplied by rail from New Orleans.

He stated that in 1954 all of Wisconsin, a dairy cattle State, used a total of 36,000 tons of molasses.

Minnesota brought in 27,000 tons of molasses at the Minnesota River in 1954, and a tonnage in excess of that in 1955.

He believes that molasses will not be barged to the upper harbor even if it were to be constructed. He thinks that the tonnage figures given by the proponents are theoretical and very unrealistic. He stated that Industrial Molasses Co. today expects to receive less molasses by barge in the year 1956 than it did receive by barge in 1955. Molasses is selling today at a higher price. It is substituted for corn as a feed, and the higher its price the less it will be substituted for corn.

Mr. Wright stated that he had found no mistakes in the railroads' supplemental brief in the analysis of transportation facts about molasses. From cost statistics from his own company, Mr. Wright stated that it cost $1.10 per ton to truck molasses from Port Cargill to Minneapolis for a round trip (figured according to union rules) at a minimum of 3 hours. He stated that distance hauls can be made for approximately 3 cents per ton-mile, where loading and unloading time (about 2½ hours) is considered as free time; however, for local hauls the savings in trucking molasses (or phospate or coal) from South St. Paul or Port Cargill to Minneapolis, as opposed to trucking it to the same point in Minneapolis from the upper harbor must be figured as follows:

[In hours]

	From South St. Paul or Port Cargill	From upper harbor
Loading time	1	1
Unloading time	1½	1½
Driving time	1½	½
Total	4	3

Therefore there would be a saving of approximately 25 percent in local hauls from a molasses terminal in the upper harbor.

Although it costs aproximately $1.10 per ton to haul molasses from Port Cargill to a Minneapolis feed mill, it would cost approximately 83 cents to haul molasses from an upper habor molasses terminal if one were constructed. He stated that the major areas of consumption in Minnesota can be more cheaply served with molasses from Port Cargill. The molasses distributor at Port Cargill can supply present and future demand, and no molasses company would locate in the upper habor any more than a competitor has tried to locate at Washington Avenue Terminal or in St. Paul.

FERTILIZER

Investigation from the Minnesota Bureau of Agricultural Statistics show consumption of tons of fertilizer by counties in Minnesota. Generally fertilizer is consumed in an area south or due west of the Twin Cities and the terminals at St. Paul and Minnesota River. Consumption of fertilizer is very light in northern Minnesota with the exception of a few counties in northwestern Minnesota, as shown on the attached map.

Investigation was made with the office of the traffic manager of the Farm Bureau Service Co., St. Paul, Minn. This company advised that last year about 25,000 to 30,000 tons of phosphate was brought in to St. Paul, and about two-thirds of this was barged in. All potash and nitrates used in mixed fertilizer are transported to Minnesota by rail. The Farm Bureau Service Co. advised that the phosphate consumed in the northwestern counties of Minnesota is brought there direct from Canada and also from Florida by rail direct from the point of origin.

It is uneconomical to barge in phosphate to the Twin Cities and send it by truck to the northwestern counties of Minnesota which are located over 300 miles from the Twin Cities.

The Farm Bureau Service Co. has a fertilizer mixing plant at Moorhead, Minn., which is in Clay County, where it mixes fertilizer to serve the Red River Valley area. Inquiry revealed that for the Moorehead plant phosphate was brought by barge to St. Paul, and thence by rail to Moorhead. There is a special commodity rate for phosphate from the Twin Cities to Moorhead (the same rate would apply from St. Paul or from Minneapolis), and the distance is too great for an economical transportation of bulk phosphate in trucks. They ship only carload lots and find it more economical at this distance to ship phosphate by rail to its Moorhead plant.

A copy of the map showing tons of consumption of fertilizer by counties in Minnesota for 1954 is attached.

Senator HRUSKA. Now we will hear the engineers on the St. Anthony Falls project in Minnesota.

General ITSCHNER. Mr. Anderson.

STATEMENT OF JOHN ANDERSON, CORPS OF ENGINEERS

Mr. ANDERSON. I am John Anderson.

Mr. Chairman, the St. Anthony Falls project, which is an extension of navigation above the 9-foot navigation on the Mississippi River for a distance of 4.6 miles up through Minneapolis, is an authorized project. It was authorized in the River and Harbor Acts of 1937 and 1945.

The lower lock of the dam on this project has been completed, as well as the dredging below the lock. The remaining work is the upper lock and the dredging on up to the head of the navigation.

Commerce to St. Paul, in the St. Paul Harbor area, amounts to 2,262,000 tons annually. Commerce into the Minneapolis area amounts to 646,000 tons annually.

Certain local interests requested a reappraisal of the benefits for this project. They did not believe that the extension of the navigation or the completion of it was justified.

In August 1954 the House Public Works Committee adopted a resolution calling for a review of the authorized project. It was found in this review report that on an overall project basis, including the lower lock and dredging below the lower dam, dredging to the head of navigation and the upper lock, that the total cost of the entire project would be $34,065,000. The total annual charges are $1,627,000, and the annual benefits are $1,050,000, giving a benefit-cost ratio of 0.65. However, on the remaining work, dredging to head of navigation and the upper lock, is estimated to cost $19,893,000, and with the annual charges of $1,018,000 and the benefits remaining the same at $1,050,000, gives a benefit-cost ratio of 1.03.

The Chief of Engineers recommends completion of the project. Since the work already in place costing $11,052,000 would produce no benefits, the Chief of Engineers believes the projeect should be completed.

There is one modification to the authorized project recommended, and that is the provision for bridge clearances above the North Pacific Railroad bridge should be deleted for the authorized 26-foot clearance over 40,000 second-feet flow stage, and, to provide for such vertical clearance as may be advisable.

The report is now with the Bureau of the Budget. The State of Minnesota approves the project.

Senator HRUSKA. It is my understanding the Bureau of the Budget report has already been completed. I wonder if we could get that inserted later on. Have you checked yesterday or today?

Mr. ANDERSON. No, sir; I did not check today.

Senator HRUSKA. What features of local participation are there in this?

Mr. ANDERSON. Costs to local interests amount to $3,120,000 for modification of the bridges.

Senator HRUSKA. Have they agreed to do that?

Mr. ANDERSON. They have agreed to do that. They have already, I believe, spent over a million dollars.

Senator HRUSKA. Is there any other local participation besides relocation of the bridges?

Mr. ANDERSON. Yes, sir. There are other requirements, too. Lands, easements, and rights-of-way that are required in the authorized project.

Senator HRUSKA. Have they been agreed to by the local interests?

Mr. ANDERSON. Yes, sir, they have agreed to all items of local cooperation.

Senator HRUSKA. Will you make inquiry as to the Bureau of the Budget reports and comments, if any, and make them available?

Mr. ANDERSON. Yes, sir.

Senator HRUSKA. Do we understand that the Chief of Engineers' report is complete?

Mr. ANDERSON. Yes, sir, it is complete.

Senator HRUSKA. And it has been submitted?

Mr. ANDERSON. It has been submitted to the Bureau of the Budget and the State of Minnesota has also approved the project.

Senator HRUSKA. Does that complete your statement?

Mr. ANDERSON. Yes, sir.

Senator HRUSKA. Mr. Chairman.

Senator KERR. Yes, Senator Hruska.

Senator HRUSKA. Is the St. Anthony project the subject of an engineers' report, Senator Thye?

Senator THYE. Yes, in other words, it was approved by the district engineers and then the Board of Review, General Holle, and his associates approved the project and that was just here this last summer and then the Budget Bureau have assured me that they would act on the projeect and were preparing a report if the report is not already available, we would expect it soon.

Senator KERR. I understood you to say that the Board of Engineers had heard it on June 19.

Senator THYE. Yes, sir; it did. Of course, they had to take the testimony and then make their recommendations, but we do have a Board of Engineers approval. In fact, I appeared before the Board a couple of times on this project.

Senator HRUSKA. Has the Board acted yet?

Senator THYE. Yes, sir.

Senator HRUSKA. And favorably?

Senator THYE. Yes, sir.

Mr. Chairman and members of the committee, the other project on which I wish to give you an explanation, and to ask, of course, and urge your approval is this project for flood control and other improve-

ments of Ruffy Brook and Lost River in the State of Minnesota. A review and report was requested of the Board of Engineers for Rivers and Harbors by the Committee on Public Works of the United States Senate on August 16, 1949. The Secretary of the Army transmitted a favorable report to the Congress for authorization of this project on July 10, 1956.

The plan proposed will provide a reasonable degree of protection to areas affected by recurrent floods and at the same time afford adequate outlet capacity for tributary drainage improvements. It will provide for channel enlargement and realinement of Ruffy Brook from the mouth upstream a distance of 3.7 project miles, and of Lost River from 0.2 mile west of Oklee to a point about 5 miles northwest of Gonvick, a distance of 20.5 project miles.

The estimated cost of the total work on Ruffy Brook is $178,300. Of this amount the cost to the Federal Government to be $104,900 and costs to the local interests $73,400.

The estimated cost of the total work on Lost River is $972,000. Of this amount the cost to the Federal Government is $527,300 and the cost to local interests is $445,200.

Mr. Chairman, I feel it extremely important to complete these improvements to relieve the great financial losses, the damage and the havoc from recurring floods in this area.

It is good agricultural land, but you have a slow, meandering river through the area, and when you have an excessive amount of rain, it just floods over, and this whole agricultural area may be flooded for 2 or 3 days, and your crops are lost, and then the rest of the season may be perfect. If we could have this dredging and straightening out of the river and get this flood-control project in there, you are going to have a lot of good agricultural land and some good farms, when there won't be the constant threat of a flood.

Senator KERR. We have a statement here from Senator Humphrey on the Ruffy Brook and Lost River projects, which we will insert in the record at this point, without objection; also the analysis of the flood control for Ruffy Brook and Lost River, Minn.

(The statements referred to follow:)

UNITED STATES SENATE,
COMMITTEE ON GOVERNMENT OPERATIONS,
July 17, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate, Washington, D. C.

DEAR SENATOR: Now before the Committee on Public Works is a request for authorization of a flood-control project on northwestern Minnesota which would improve Ruffy Brook and Lost River, two streams which are subject to severe spring and summer flooding.

The project recommended by the Corps of Engineers would provide for channel enlargement and realinement of Ruffy Brook in its lower 3.7 miles, and similar improvement of Lost River for a distance of 20.5 miles.

During the spring snowmelt period, high flows of water regularly inundate large areas of cultivated land, and because of the very gradual slope of the floodplain, permit persistent, long-lasting coverage by the floodwaters. In the summer, heavy rains again pose the regular threat of flooding in this area.

The Board of Engineers for Rivers and Harbors, in reviewing the report of the district engineer, estimated the benefit-cost ratio for Ruffy Brook at 1.3, while the Board estimates the benefit-cost ratio of the improvement in Lost River at 4.6. Total net cost of the 2 projects to the United States is $634,000.

I urge the committee to give favorable consideration to a resolution authorizing the Corps of Engineers to complete the necessary improvements in Lost River and Ruffy Brook.

I should appreciate it if this letter might be made a part of the official record of the hearings on this project.

Sincerely yours,

HUBERT H. HUMPHREY.

FLOOD CONTROL, RUFFY BROOK AND LOST RIVER, MINN.

Location.—In northwestern Minnesota on stream tributary to Clearwater River.

Report authorized by.—Senate Committee on Public Works resolution, August 16, 1949.

Existing project.—None.

Plan of recommended improvement.—Provides for an enlarged and straightened channel in the lower 5 miles of Ruffy Brook and in the middle 23-mile reach on Lost River.

Estimated cost

	Federal	Non-Federal	Total
Ruffy Brook:			
Survey report (July 1952)	$98,700	$64,500	$163,200
Current (January 1956)	104,900	73,400	178,300
Lost River:			
Survey report (July 1952)	507,000	410,400	917,400
Current (January 1956)	527,300	445,200	972,500

Local cooperation.—Furnish lands, easements and rights-of-way; hold and save the United States free from damages; maintain the improvements; make necessary changes to utilities, highways, and highway bridges including approaches; furnish in cash or equivalent work 16.4 and 33.2 percent of the gross Federal first costs for Ruffy Brook and Lost River, respectively, estimated at $20,600 and $262,100 (January 1956 price levels).

Project economics

	Ruffy Brook		Lost River	
	Survey report	Current	Survey report	Current
Annual charges	$7,310	$7,890	$38,740	$40,720
Annual benefits:				
Flood control	5,010	4,810	31,350	30,765
Drainage	5,670	5,420	163,940	156,725
Total	10,680	10,230	195,290	187,490
Benefit-cost ratio	1.46	1.30	5.04	4.65

Senator KERR. I am wondering if you are sponsoring the Minnesota River project, Senator Thye? I see it is listed here.

Senator THYE. That is a different area. The Minnesota River comes down from the southwest.

Senator KERR. As I understand it, it is in the House bill, an authorization to go to mile 14.2, and we have a statement from Senator Humphrey which we are placing into the record, in which he is asking that the authorization be extended to mile 14.7.

(The letter referred to follows:)

UNITED STATES SENATE,
COMMITTEE ON GOVERNMENT OPERATIONS,
June 29, 1956.

HON. ROBERT KERR,
Chairman, Subcommittee on Flood Control, Rivers and Harbors,
Committee on Public Works, United States Senate, Washington, D. C.

DEAR SENATOR KERR: You will recall that I wrote to you on June 27, 1956, with reference to the extension of the 9-foot channel in the Minnesota River, Minn., to a distance of mile 14.7.

I am enclosing for the information of the subcommittee a telegram from Mr. Myron Richards, president of the Richards Oil Co., 201 Fremont Avenue North, Minneapolis, Minn., which gives strong evidence of the need for the Minnesota River Channel.

I respectfully request that this telegram be added to my letter of June 27 as a part of the official transcript of the hearings on the omnibus public works bill.

Kindest personal regards.

Sincerely yours,

HUBERT H. HUMPHREY.

MINNEAPOLIS, MINN., *June 27, 1956.*

Senator HUBERT H. HUMPHREY,
United States Senate, Washington, D. C.:

We are very happy to receive news of your progress on the Minnesota River channel and hope that you are successful in securing Senate committee approval for extension to mile 14.7 to include our port. Incidentally, we have shipped 7,506 tons of soybean oil from our port this year for the Honeymead, Inc., at Mankato. They expect to ship an additional 7,500 tons of soybean products through our port this year. Unfortunately we lost a river terminal contract this week for 50,000 tons per year of petroleum products with Oskey Bros. Petroleum Co. due to our inability to assure them a 9-foot channel on the Minnesota River. We have airmailed to your office their letter to us concerning this petroleum contract to support our need for extension to mile 14.7. I had lunch with Mr. Cosgrove and other executives of Green Giant Co., Le Sueur, last Monday. It would be good to advise their Mr. Benson on the progress of this channel legislation as it is important to their plans of going ahead with the construction of a can factory at Savage. An important reason for locating factory at Savage is to use the Minnesota River for receiving tin plate shipments by barge in the event Port Cargill's dock facilities are not available. They would be interested in using our port facilities for receiving tin plate shipments as their proposed building site is not on river frontage. Thank you for your able leadership in this important navigation project.

Best regards,

RICHARDS OIL CO.,
MYRON RICHARDS,
President.

UNITED STATES SENATE,
COMMITTEE ON GOVERNMENT OPERATIONS,
June 27, 1956.

HON. DENNIS CHAVEZ,
Chairman, Senate Committee on Public Works,
Washington, D. C.

DEAR SENATOR: I wish to bring to the attention of the chairman of the Committee on Public Works the fact that a new situation now exists with respect to the proposal to construct a 9-foot navigation channel in the Minnesota River above St. Paul and Mendota, Minn.

The Minnesota River, rising in western Minnesota, flows toward the Mississippi through some of the richest grain-producing country in the world. The river is potentially a direct and economical means of shipping vast quantities of grain to processing centers, in addition to its great potential usefulness in shipping in coal and petroleum products from out of State. Particularly as the rail transportation system each year becomes more inadequate to handle the movement of grain from the producing areas, every additional means of low-cost transportation becomes more valuable.

Since 1931 a 4-foot channel has been maintained as a Federal project from the mouth of the Minnesota upstream to the city of Shakopee, a distance of approximately 25 miles. Thus, an important grain-producing area has been given limited access to the great 9-foot channel of the Mississippi.

During 1943, at the height of the war effort, a local Minneapolis company, Cargill, Inc., cooperated with the Army engineers in having a 9-foot channel dredged from the mouth of the Minnesota to a point 13.1 miles upstream, in order to facilitate the downstream movement of towboats and oceangoing tankers constructed in the shipyard at Port Cargill. Since that time, Cargill and other companies which have established shipping facilities on the Minnesota at various points as far upriver as Chaska—29.6 miles from the mouth—have cooperated in partially maintaining the 13-mile channel dredged in 1943.

Since 1947, other large corporations have shown increasing interest in the possibility of using a permanently maintained 9-foot channel in the Minnesota. These include other grain shippers and importers of coal and petroleum, as well as manufacturing concerns.

Since 1951 the Cargill Co., in particular, has demonstrated the potential value of a permanent 9-foot channel in the Minnesota by regularly increasing its annual shipments of grain from the 167,973 tons it shipped in 1951. In addition, the Northern States Power Co. has completed a steam electric plant at mile 8.7 on the Minnesota which is expected to use 400,000 tons of coal via barge ultimately each year.

On March 2, 1945, the Congress authorized the Corps of Engineers to make a preliminary examination and survey of the Minnesota River up to a point 10 miles above New Ulm, Minn., with a view to improvement in the interest of navigation and related purposes, under the Rivers and Harbors Act.

The report of the district engineer on October 10, 1952, found that the most suitable plan of improvement would be "a channel 9 feet deep and 100 feet wide from the mouth to mile 14.2." The estimated costs of the project were $2,303,000, with total annual carrying charges estimated at $115,300. The estimated annual benefits were determined to be $402,900—which resulted in a most favorable benefit-cost ratio of 3.49.

This report was passed on up to the Army Chief of Engineers on March 20, 1953, almost precisely 3 years ago, with the following comment:

"The Board of Engineers for Rivers and Harbors concurs in general in the views of the reporting officers. It notes that the plan of improvement presented by the district engineer is economically justified. However, since local interests are unwilling to meet the requirements of local cooperation, the Board recommends that further improvement of Minnesota River, Minn., for navigation be not undertaken at this time."

Three years have now passed. Since the report of the Board of Engineers for Rivers and Harbors in 1953, a great deal more activity has developed on behalf of the proposed channel improvement. Local interest is now great, and, in fact, an organization made up of mayors and other public officials and representatives of civil organizations from communities in Dakota, Hennepin, Carver, and Scott Counties was recently formed to coordinate a plan to meet the requirements set by the Corps of Engineers, if the proposed channel is to be undertaken as a Federal project.

Recently I received a resolution from this organization which is headed by State Senator John A. Metcalf, of the 21st District of Minnesota. A copy of this resolution is attached.

More formal action is anticipated on July 2, 1956, when the Minnesota Water Resources Board will conduct a hearing for the purpose of considering the establishment and creation of a watershed conservancy district along the lower Minnesota River to a distance of 25.1 miles upstream from the confluence of the Minnesota and the Mississippi Rivers. Thus the local interests will have an official organization to deal with the Corps of Engineers. Enclosed is a notice of the hearing scheduled for July 2.

In addition, I wish to call the attention of the committee to the fact that I have discussed the possibility of extending the proposed channel from mile 14.2 to mile 14.7, an extension which would permit inclusion of the area known as Port Richards, an important oil-distribution point.

Enclosed is a letter from Maj. Gen. E. C. Itschner, Assistant Chief of Engineers for Civil Works, informing me that in the opinion of the Chief of Engineers, the benefits to be derived from the extension are sufficient to justify the relatively small increase in original cost of $5,000, with an increase of $1,000 in annual maintenance.

I have discussed this proposed extension with the chairman of the Subcommittee on Rivers and Harbors of the House Committee on Public Works, and have secured his agreement to support this extension in conference.

Mr. Chairman, I wish to urge the committee to retain the Minnesota River Channel project in the omnibus bill on which full House action is expected at the end of this week, and to authorize the engineers to extend the proposed Minnesota River Channel to mile 14.7.

Kindest personal regards.

Sincerely yours,

HUBERT H. HUMPHREY.

RESOLUTION

Whereas interest in the navigation of the lower 30 miles of the Minnesota River has been rapidly increasing since the close of World War II, especially since 1947; and

Whereas several large corporations have purchased land or obtained long-term leases on land bordering the Minnesota River with the intention of locating new plants there as soon as they know that the river will have a 9-foot channel maintained; and

Whereas from the junction of the two rivers at Mendota there is today more freight, almost double, moving up the Minnesota River than up the Mississippi River; and

Whereas Minnesota needs the additional industries, that desire to locate on the Minnesota River, to stabilize unemployment; and

Whereas local interest in this project is now great; and

Whereas local subdivisions and individuals are now planning on ways and means of meeting the requirements set by the Congress of the United States on the people of the territory for the completion of this project; and

Whereas the Minnesota River from its junction with the Mississippi River at Mendota to the Carver Rapids is a level pool requiring no locks or dams but simply dredging and a small amount of riprap, the total cost of which would be small in comparison to the ultimate freight moved: Now, therefore, be it

Resolved, That we humbly request of the Congress of the United States that all necessary steps be taken to secure a review of the report on the Minnesota River in interest of navigation and related purposes as transmitted to Congress by the Army engineers on February 16, 1954, and to work for the early completion of the 9-foot channel to the bridge, mile 25.1 at Shakopee.

John A. Metcalf, State Senator, District 21; Frank X. Gallagher, State Representative, District 20; Myron Richards, Richards Oil Co., Savage; Cormac A. Suel, Publisher, Shakopee; Florian Ader, Mayor, Chaska; Frank Strunk, Editor, Shakopee; Mark Egan, Mayor, Savage; Emil Teske, Greater Chaska, Inc., Chaska; Jerome Akin, Chairman, County Commissioners, Dakota County; C. Stender, Chairman, County Commissioners, Carver County; Harold Huss, Mayor, Shakopee; Sylvester DeVenny, Chairman, County Commissioners, Scott County.

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., May 23, 1956.

Hon. HUBERT H. HUMPHREY,
United States Senate,
Washington, D. C.

DEAR SENATOR HUMPHREY: Your letter to the resident member, Board of Engineers for Rivers and Harbors, dated May 14, 1956, on the proposed navigation improvement of Minnesota River, Minn., has been referred to the Chief of Engineers for further reply. Reference is also made to the letter concerning this matter which you addressed to me under date of May 19.

With regard to extension of the channel in the Minnesota River approximately one-half mile to mile 14.7, I might state that the Chief of Engineers in his report on the river which was submitted to Congress on February 16, 1954, noted that a plan of improvement to provide for 9-foot navigation to mile 14.2 was economically justified. However, he reported that further improvement of the Minnesota River for navigation was not advisable at that time because local interests were

unwilling to meet the requirements of local cooperation. The benefit-to-cost ratio based on report price levels (1952) was 3.49 to 1.

Based upon data obtained for the report, the proposed extension to mile 14.7 could be accomplished at an additional first cost of $5,000 with an increase of $1,000 in annual maintenance based on report price levels. The Minnesota River Channel was improved by private interests to mile 14.7 in 1955 and it is reported that approximately 6,600 tons of petroleum products were moved over this reach to a terminal at mile 14.7 during that year. In view of the existing and prospective commerce, it is the opinion of the Chief of Engineers that the benefits to be derived from the extension are sufficient to justify the relatively small increase in cost. Additional studies will be necessary to arrive at a benefit-to-cost ratio for the project.

In view of the foregoing, the Chief of Engineers will be prepared to testify in support of the extension when called upon by Congress. You may also be assured that as soon as the necessary data has been assembled the present position of local interests and the corresponding change in the recommendations of the Chief of Engineers will be brought to the attention of the Congress.

Sincerely yours,

E. C. ITSCHNER,
Major General, USA,
Assistant Chief of Engineers for Civil Works.

BEFORE THE MINNESOTA WATER RESOURCES BOARD

IN THE MATTER OF THE ESTABLISHMENT OF A WATERSHED DISTRICT AND APPOINTING MANAGERS THERETO

NOTICE OF HEARING

Nominating petitions having been heretofore filed with the State water resources board praying for the establishment and creation of a watershed district and appointment of managers thereof for the general purpose of improving the channel of the Minnesota River by widening and deepening the same a distance of approximately 25.1 miles upstream from the confluence of the Minnesota and Mississippi Rivers under the provisions of Laws of 1955, chapter 799, which nominating petitions have been examined and found to be sufficient and copies thereof having been served upon the county auditor of each county affected, as fully appears from the proof of service filed with said board.

Now, therefore, notice is hereby given, That said State water resources board will meet on the 2d day of July 1956 at 10:30 o'clock in the forenoon at the the Shakopee High School Auditorium in the city of Shakopee, Scott County, Minn., for the purpose of considering the establishment and creation of a watershed district and giving the same a corporate name and the appointment of a board of managers, as authorized by Laws of 1955, chapter 799. The territory to be included within such watershed district shall not extend beyond the 800-foot contour line, S. L. D. 1929, 5th Gen. Adj., as such contour shall be established on both sides of the Minnesota River for a distance of approximately 25.1 miles upstream from the confluence of the Minnesota and the Mississippi Rivers.

Notice is further given, That all persons affected by these proceedings or interested therein may appear and be heard at the time and place above specified.

Dated at St. Paul, Minn., this 21st day of June 1956.

STATE WATER RESOURCES BOARD,
JOHN DALEY.
RUSSELL YOUNGGREN.
CHARLES L. HORN.

Senator HRUSKA. Next the engineers on the Minnesota River, in Minnesota.

Mr. ANDERSON. We have no map on that project.

Senator HRUSKA. What does it consist of?

Mr. ANDERSON. The report is included in the House bill. The project provides for 9-foot navigation from the mouth of the Minnesota River to mile 14.2. Local interests have requested an extension of 0.5

of a mile to mile 14.7. The estimated cost of that extension of five-tenths of a mile is about $5,000. It extends on up to a new terminal which was put in by an oil company and to which some 6,500 tons of petroleum products are reported to have been shipped. They have already constructed a channel at their own expense.

However, it is not a standard size channel and they are asking us to include that in the project for maintenance and to construct it to standard dimensions.

Senator HRUSKA. Would this require an amendment to the language in the House bill?

Mr. ANDERSON. Yes, I believe that is correct.

Senator HRUSKA. Was the report of the Chief of Engineers favorable on this?

Mr. ANDERSON. No, sir. The report in the original case was not favorable because the local interests would not furnish the items of local cooperation.

Senator HRUSKA. Has any change occured in the original attitude of the local interests?

Mr. ANDERSON. Yes, sir. They have assured us that they will furnish items of local cooperation. In fact we had word yesterday that A district was formed to furnish items of local cooperation. They had a meeting on July 17.

Senator HRUSKA. So that an amendment will be necessary to the language?

Mr. ANDERSON. Yes, to provide for extension of the channel to mile 14.7 instead of 14.2.

(The document referred to above is as follows:)

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., November 16, 1953.

Subject: Minnesota River, Minn.
To: The secretary of the Army.

1. I submit for transmission to Congress my report with accompanying papers on preliminary examination and survey of Minnesota River, Minn., up to a point 10 miles above New Ulm, with a view to improvement in the interest of navigation and related purposes, authorized by the River and Harbor Act approved March 2, 1945.

2. Minnesota River rises in Big Stone Lake in western Minnesota and flows generally easterly to the Mississippi River at St. Paul, Minn. The lower 25.1 miles are affected by backwater from lock and dam No. 2 near Hastings, Minn., on the Mississippi River. In this reach the channel is narrow and tortuous and contains sharp bends. The existing Federal project provides for the maintenance of a 4-foot open-channel improvement from the mouth to Shakopee, mile 25.1. The project was completed in 1931. Costs to June 30, 1951, have been $12,731 for new work and $75,180 for maintenance. The approved estimate of annual cost of maintenance is $2,500. During 1943, a channel 9 feet deep and 100 feet wide was dredged from the mouth to mile 13.1. The work, done by the Corps of Engineers with funds largely supplied by Cargill, Inc., a local company, resulted from action taken by the Secretary of the Army authorizing the acceptance of a total of $139,671 from the company to defray the cost of dredging to a greater depth than that authorized by the existing 4-foot project, in order to facilitate the downstream movement of towboats and oceangoing tankers constructed in the shipyard at Port Cargill. A launching basin 20 feet deep and a mooring basin 13 feet deep were constructed at Port Cargill as

part of the project. During 1949, 1950, and 1951, the Cargill Co., is reported to have expended $115,000 on maintenance of the channel.

3. The tributary area had a total population of 151,000 in 1950. The principal cities with their populations are: Mankato, 18,809; New Ulm, 9,348; St. Peter, 7,754; and Waseca, 4,927. Farming is the principal occupation, and the handling, manufacture, and processing of agricultural products constitute the principal industries. The leading farm crops are corn and small grains. Other industries manufacture brick and tile, and quarry and prepare stone for various purposes. The area is served by railroads and a system of Federal, State, and county highways. Freight terminal facilities on the river are at Port Cargill. They consist of a grain-loading facility, with truck and rail connections, having a capacity of 1,500 tons per day; a dock 650 feet long; an adjacent warehouse; and a mooring space 1,300 feet long, all owned by the Cargill Co. but open to other water carriers. That company also has two 250,000-bushel steel storage bins at Port Cargill. During World War II, commerce on the river consisted principally of completed tankers and towboats floated downstream from Port Cargill and shallow-draft barges floated downstream from the Cargill Co. at Chaska. During 1950, grain shipments by barge from Port Cargill totaled 100,351 tons and during 1951, this commerce increased to 167,973 tons. The Northern States Power Co. has initiated construction of a steam electric plant on the right bank of Minnesota River at mile 8.7. Anticipated initial receipts of coal by barge are estimated at 100,000 tons annually which will ultimately increase to 400,000 tons annually for the powerplant.

4. Local interests desire improvement of the Minnesota River in the interest of navigation from the mouth to various points as far upstream as New Ulm. A number of proponents are in favor of extending navigation at least to Chaska, mile 29.6. The Cargill Co. states that due to establishment of its grain storage and loading facilities at Port Cargill, grain shipments will reach 1 million tons annually. Other commodities expected to move in quantity over an improved waterway are coal and petroleum and its products.

5. The district engineer finds the most suitable plan of improvement to be a channel 9 feet deep and 100 feet wide from the mouth to mile 14.2. Improvement above mile 14.2 could not be justified by the additional benefits anticipated above that point. He estimates the cost at $2,303,000 of which $2,178,000 is Federal consisting of $2,082,600 for channel improvement, $81,400 for fender protection at the railroad bridge at mile 1.6, and $14,000 for aids to navigation; and $125,000 is non-Federal consisting of $72,000 for lowering submarine cables and pipelines, $4,000 for road relocations, and $49,000 for lands and rights-of-way. The Federal and non-Federal annual maintenance costs are estimated at $29,000 and $3,700, respectively. The total annual carrying charges are estimated at $115,300 of which $105,880 is Federal and $9,420 is non-Federal. The district engineer estimates the annual benefits at $402,900 of which $402,000 is from savings in transportation costs consisting of $190,700 on grain, $25,300 on petroleum products, and $186,000 on coal, and $900 is a benefit due to elimination of bank erosion. The benefit-cost ratio is 3.49. The district engineer concludes that the improvement is economically feasible, however, he states that participation by the Federal Government in construction and future maintenance of the project is not considered advisable at this time in view of the unwillingness of local interests to furnish the required items of local cooperation. They would be requested to provide lands and rights-of-way, hold and save the United States free from damages, make necessary changes in roads; and maintain fender protection at the railroad bridge at mile 1.6. He recommends that no improvement be undertaken at this time. The division engineer concurs.

6. The Board of Engineers for Rivers and Harbors notes that a plan of improvement is economically justified but local interests are unwilling to meet the requirements of local cooperation. The Board recommends that further improvement of Minnesota River, Minn., for navigation be not undertaken at this time.

7. After due consideration of these reports I concur in the recommendation of the Board of Engineers for Rivers and Harbors. Therefore, I report that further improvement of Minnesota River, Minn., for navigation is not advisable at this time.

S. D. Sturgis, Jr.,
Major General, Chief of Engineers.

Subject: Minnesota River, Minn. 827 (Minnesota River, Minn., above New Ulm) 3d Ind.
From: The Board of Engineers for Rivers and Harbors, Washington, D. C., March 20, 1953.
To: The Chief of Engineers, United States Army.

1. Local interests were informed of the recommendations of the reporting officers and given an opportunity to present additional information to the Board. Careful consideration has been given the communications received.

2. The Board of Engineers for Rivers and Harbors concurs in general in the views of the reporting officers. It notes that the plan of improvement presented by the district engineer is economically justified. However, since local interests are unwilling to meet the requirements of local cooperation, the Board recommends that further improvement of Minnesota River, Minn., for navigation be not undertaken at this time.

For the Board:

B. L. ROBINSON,
Brigadier General,
Chairman.

Senator HRUSKA. Ruffy Brook and Lost River, Minn.
General ITSCHNER. Mr. Adams.

STATEMENT OF HARRY ADAMS, CORPS OF ENGINEERS

Mr. ADAMS. I am Harry Adams, Mr. Chairman.

The report on Ruffy Brook and Lost River was authorized by a resolution of the Senate Committee on Public Works dated August 16, 1949. The project is for flood control and drainage. It is located in the western part of Minnesota in the drainage basin of the Red River of the North. It is located on Lost River, which is a tributary of the Clearwater and Ruffy Brook which is also a tributary of the Clearwater River.

The project consists of channel improvement and clearing of channels for reduction of flood damages and improvement of drainage.

The costs, as given on the chart here, are on the basis of 1952 prices, as given in the report, and at current levels the first costs would be $178,300 total for Ruffy Brook, as compared with $163,200 at the 1952 level.

The benefit-cost ratio at the current level on Ruffy Brook is 1.30, as compared to 1.46 at the 1952 level.

The first costs at current levels for Lost River are $972,500 and the benefit-cost ratio is 4.65.

Senator HRUSKA. Will you give us the non-Federal contributions in each of those cases?

Mr. ADAMS. Yes, sir. In the case of Ruffy Brook the non-Federal cost at current levels are $73,400.

For Lost River the non-Federal costs are $445,200. Local cooperation requirements are lands, easements and rights-of-way and there is also a requirement for cash contribution which is equal to 16.4 percent of the first costs for the Ruffy Brook portion of the project, and it is 33.2 percent of the first cost for the Lost River project.

The cash contribution is because of the drainage benefits that would be realized from the project.

Senator HRUSKA. And those percentages result respectively in the sums of $20,600 and $262,100? Is that correct?

Mr. ADAMS. That is correct, sir.

The report was transmitted to the Congress on the 10th of July. There are no objections by the Bureau of the Budget and the State of Minnesota is in favor of the project.

Senator HRUSKA. Does that complete your statement?

Mr. ADAMS. Yes, sir.

Senator THYE. That is just a very slight further distance up the river. It would extend navigation up to the town of Savage, and it is a little difference beyond the town of Savage that would permit greater development on the river, that Senator Humphrey made mention of.

Senator KERR. Very good, Senator. We are very glad to have you here today.

Senator THYE. Thank you, Mr. Chairman.

Senator KERR. Now, Senator Dworshak, you are interested in Bruces Eddy Dam, Clearwater River, and Penny Cliffs Dam, I believe.

Senator DWORSHAK. Just Bruces Eddy. Penny Cliffs is not up. Will General Itschner testify at this time?

Senator KERR. The procedure we are following in this hearing is we are hearing the Senators and the Congressmen on these projects, and any civilian witnesses that are here.

After they have all completed, then we will hear the Army engineers with reference to all the projects that have been testified about today, and their statements with reference to each project will go into the record at the point in the record where other testimony about it was given.

Senator DWORSHAK. So General Itschner will not testify at this time?

Senator KERR. No, but if the Senator wanted him to, we will be glad to call him.

Senator DWORSHAK. No, I will be glad to follow your procedure. The only reason I wanted to know was that I would certainly not take up the time of the committee to discuss the engineering background or the economic background. I will try to be very brief and there are several witnesses here who do wish to testify.

Senator KERR. That is all right, Senator. You take all the time you please.

STATEMENT OF HON. HENRY C. DWORSHAK, A UNITED STATES SENATOR FROM THE STATE OF IDAHO

Senator DWORSHAK. First, may I say that the State of Idaho has four main rivers—the Snake, the Salmon, the Clearwater, and the Kootenai. The Salmon and Clearwater Rivers join the Snake, and then subsequently flow into the Columbia at Pasco, Wash.

Mr. Chairman, I am interested at this particular time in having consideration of the proposed Bruces Eddy project which was recommended more than a year ago by the Army Engineers Corps, because unfortunately there have been many false charges and much misinformation and propaganda distributed and sent to disregard this project; consequently, because I know that until the project is authorized that it is not possible for the Army Engineers Corps to be given any money for initiating an engineering study, I think that it is important now to ask for authorization of the Bruces Eddy project on the North Fork of the Clearwater River.

Senator KERR. Just a moment now. I wonder if one of the staff of the engineers would point out to us the project the Senator is talking about there.

General ITSCHNER. I would be glad to, Senator.

The Clearwater River has its mouth at the Snake River at Lewiston, Idaho, and Clarkston, Wash. It has three principal branches: The South Fork, and the Middle Fork, which join in the town of Kooskia, Idaho; and the North Fork, which joins the Clearwater River at Orofino.

Senator KERR. Where does this river have its confluence with the Snake River?

General ITSCHNER. It has its confluence with the Snake River at Lewiston, Idaho, and Clarkston, Wash.

Senator KERR. Where does the Snake River come in from at that point?

General ITSCHNER. The Snake River has its source in Wyoming, crosses a good deal of Idaho, with a large loop to the south, goes up through the Hells Canyon Reach, and joins the Clearwater at Lewiston.

Senator DWORSHAK. Is that approximately 90 miles downstream from the site of the proposed high Heils Canyon Dam?

General ITSCHNER. That is right, it is about 90 miles north of the proposed site of the high Hells Canyon Dam.

Senator DWORSHAK. It is on the Clearwater above—between——

General ITSCHNER. Where the Clearwater empties into the Snake, below the Hells Canyon Dam.

Senator KERR. Where would the proposed Hells Canyon dam site be?

General ITSCHNER. The proposed Hells Canyon dam site would be about in this vicinity [indicating], about 90 miles south or upstream from Lewiston, Idaho.

Senator KERR. What I am trying to get in my mind is the way the water flows.

General ITSCHNER. The water flows——

Senator KERR. That water is flowing west in the Clearwater River; is it not?

General ITSCHNER. Yes; and the water in the Snake River is flowing north. They join and both flow to the west, joining the Columbia near the city of Pasco, Wash.

Senator KERR. And the site of Hells Canyon Dam is south and west of the proposed Bruces Eddy Dam?

General ITSCHNER. Yes, sir.

Senator KERR. And it neither affects the other in any way?

General ITSCHNER. Not directly.

Senator KERR. I mean there is none of the water flowing along the Clearwater River that passes the Hells Canyon dam site?

General ITSCHNER. No, sir; nor vice versa.

Senator KERR. Nor vice versa.

General ITSCHNER. That is correct. The dam that the Senator was speaking of, Bruces Eddy Dam, is on the north fork of the Clearwater River, just above its confluence with the main Clearwater River.

Senator KERR. And if built would hold back water which otherwise would flow into the Snake River below the Hells Canyon project if built?

General ITSCHNER. That is right, sir.

Senator KERR. All right.

Senator DWORSHAK. Pursuing that phase of the development, Mr. Chairman, I would like to stress that in 1948 when we had devastating floods in the lower Columbia River Basin—near Vanport and Portland—the record shows that the Snake River discharged only about one-sixth or one-seventh of the total flow; the Salmon River, which runs into the Snake just south of Lewiston, discharged about two-sixths; and the Clearwater River about three-sixths.

Senator KERR. About half of it?

Senator DWORSHAK. Yes. In other words, of the three great rivers which form the Snake River, which is the main tributary of the Columbia—the Snake is not recognized as a flood threat, because there are about 15 or 18 reservoirs constructed on the Snake River—there are no reservoirs on the Salmon River or the Clearwater River at the present time; and so the real danger and threat at this time comes from the runoff on those two rivers.

I want to emphasize that there is absolutely no relationship of the proposed Bruces Eddy project and the high Hells Canyon Dam, because the 2 sites are about 160 miles apart.

Senator KERR. And none of the water of either contributes to what could be impounded in the other, is that correct?

Senator DWORSHAK. That is correct.

As of a year ago, as I recall, in the conference committee of the Appropriations Committee—and I think the chairman of this subcommittee sat beside me—there was $100,000 in the bill as approved by the Senate to enable the Army engineers to initiate a study of the Bruces Eddy project, but because there had been no authorization of this project, that item was deleted by the conference committee.

While there is considerable controversy unfortunately, because of the lack of complete understanding of what is proposed at this time in this project, many people, including myself, believe that the only way we can undertake to study this project by the Army Engineers Corps is to get an authorization.

I am advised by General Itschner that it will take about 2 years to complete those studies. Likewise, currently, there is being made an extensive study, and survey by the Federal Fish and Wildlife Service. That study will require something over 3 years: 1 year has already passed, so it will require about 2 years more, which means if we project these studies to the picture about 2 years, the Congress will then have opportunity to receive all of the information from an engineering standpoint, and also so far as the fish and wildlife problems are related to this particular project. Therefore, 2 years from now the Congress can have an opportunity to review these reports, and then determine what kind of project will be constructed, if it is determined that a project should then be constructed at the Bruces Eddy site.

Mr. Chairman, I am somewhat surprised that many telegrams are flowing into the committee and a few into my office from probably 12 or 15 States. These telegrams have been inspired by the National Federation of Fish and Wildlife, and I am not critical because I say that I have no desire at this time to force a project upon anybody until such time as all of the facts relating to the project are studied and disclosed, but it would seem to me that if there is any justification

in the many claims, which are being made by these conservation groups that it is unwise to build Bruces Eddy because of fish and wildlife the committee should have the benefit of these studies so that 2 years from now, instead of dealing in propaganda and misinformation, we will have the opportunity to lay before the proper committees of the Congress these factual reports upon which to base any decision which is made at that time.

I am not going to go into any controversy as to the failures of these things, because I think the way the committee is proceeding is logical and sound in trying to get all this information.

I may say, Mr. Chairman, while the Army engineers recommended 2 years ago the Bruces Eddy Dam on the North Fork and the Penny Cliffs project on the Middle Fork, no efforts are being made to undertake a study of that at the present time, so it appears from that there may be some justification at this time to request that the Army engineers who made the original study of the two dams several years ago, and I may point out that I was responsible for getting them the money to enable the engineers to make these studies.

Again I want to stress that I have no desire to push the construction of Bruces Eddy Dam, but merely to get an authorization which will enable the Congress to provide the funds which are necessary if the Army Engineer Corps is to undertake the study.

I think that is about all I have to say on this subject. I shall remain and listen to what is said by the witnesses, Mr. Chairman.

Senator HRUSKA. May I ask just one or two questions?

Senator KERR. Yes, Senator Hruska.

Senator HRUSKA. What is the relative size of the Middle Fork and the North Fork?

Senator DWORSHAK. I think about the same. A few years ago the Army engineers proposed a dam at Kooskia, which would store the water of the Middle Fork and the South Fork, but because it would flood out the town of Caniar, the engineers did not pursue that.

The North Fork is possibly the largest of the three branches.

Senator HRUSKA. What is your requested authorization for that, Sentor Dworshak?

Senator DWORSHAK. Yes, just an authorization for the Army engineers for them to be able to undertake a study, because technically no funds can be allocated for this study until the project is authorized. This has nothing to do with construction.

It will require about 2 years to complete both the engineering and fish and wildlife studies, so the real decision will be made 2 years from now.

Senator KERR. I think that the general has something to say to you.

General ITSCHNER. May we go off the record, Mr. Chairman?

Senator KERR. Yes; off the record.

(Discussion off the record.)

Senator DWORSHAK. I might say that I have two witnesses with me today whom I would like to introduce: Mr. A. B. Curtis, of Orofino, and Mr. Robert Werner, editor of the Clearwater Tribune.

Senator KERR. I want to place in the record a statement by Senator Murray, filed with the committee, and have them tabulate the tele-

grams that have come to the committee and to the chairman, both of this subcommittee and of the full committee, stating positions on this project.

(The statements referred to follow:)

UNITED STATES SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D. C., July 17, 1956.

Hon. ROBERT S. KERR,
Chairman, Subcommittee on Rivers and Harbors, Senate Public Works Committee, Senate Office Building, Washington, D. C.

DEAR MR. CHAIRMAN: It would be a very serious mistake in my judgment to include authorization of Bruces Eddy in the omnibus rivers and harbors bill. I understand this is being urged on your subcommittee.

Studies of the proposed dam are not sufficiently advanced to make clear if it is desirable. While Army engineers have completed preliminary work, it is my understanding that no detailed engineering has been done. Studies by wildlife agencies on the effect on steelhead salmon runs, wildlife range, and recreational potentialities of the area have not been completed as they should be.

The sudden pressure for authorization of Bruces Eddy is, of course, also part and parcel of the strategy to put over the power "partnership" in the Pacific Northwest, clutter the Snake River with low dams instead of high Hells Canyon Dam, and establish an "Ebasco Valley Authority" in the Columbia Basin.

Bruces Eddy and Pennycliffs Dam were first advanced as providing a substitute for the storage which would be lost by private development of the Hells Canyon Dam stretch of the Snake River. As this year's floods in the lower Columbia Basin demonstrated, potential flood control capacity both on the Snake and the Clearwater Rivers needs to be utilized; they are not alternative.

I urge your committee not to act on this matter but hold it over for adequate consideration in the next Congress.

Sincerely yours,

JAMES E. MURRAY.

BRUCES EDDY DAM AND RESERVOIR, IDAHO

(S. Doc. 51, 84th Cong., 1st sess.)

Location.—On North Fork Clearwater River 1.9 miles above its confluence with Clearwater River which is 41 miles upstream from Lewiston, Idaho.

Report authorized by.—Senate Public Works Committee resolution October 5, 1951.

Existing project.—None specifically authorized in this location but proposed project would form a valuable addition to the main control plan for Columbia River of which several authorized units are not now capable of development as originally planned (John Day, Priest Rapids, Hells Canyon, Glacier View).

Plan of recommended improvement.—An earthen-core rock fill dam, 570 feet in effective height creating a reservoir of 1,433,000 acre-feet of usable storage with a total power installation of 240,000 kilowatts.

Estimated cost

	Federal	Non-Federal	Total
Project document	$122,935,000	0	$122,935,000
Current	122,650,000	0	122,650,000

Local cooperation.—No capital investment required: Local interests must operate and maintain log-passing facilities. (See comments of the Bureau of the Budget.)

Project economics

	Project document	Current
Annual charges	$5,209,000	$6,042,000
Annual benefits:		
Flood control	1,725,600	1,747,000
Navigation	537,000	537,000
Power	8,175,000	8,175,000
Recreation	45,000	36,000
Total	10,482,600	10,495,000
Benefit-cost ratio	2.01:1	1.74:1

Comments of the Bureau of the Budget.—The Bureau of the Budget interposed no objections to submission of the project document to the Congress but stated that authorization for complete Federal development is not in accord with the President's program until the possibilities of local participation have been fully explored. (While local interests have studied development of power available at the site, it is unlikely, in view of the large downstream flood control and power benefits involved, that they would undertake full project development unless some form of Federal participation is authorized.)

Senator HRUSKA. May I add, Mr. Chairman, as to those telegrams are some that I have received? I think there are 2 or 3.

Senator KERR. Yes.

Senator NEUBERGER. Mr. Chairman, I have telegrams here that I have received from people that I would like to put into the record, if I may.

(The above-mentioned documents follow:)

Proposed Bruces Eddy and Penny Cliffs Dams on Clearwater River will exterminate migratory fish, greatly reduce winter range for thousands of elk, ruin tourist trade, and flood much of Lewis-Clark Highway, costing hundred thousand a mile to build. People here unalterably opposed to these dams. We sincerely hope you vote against any authorization of these projects.

MAURICE HARLAND,
Secretary, Whitepine Sportsman Association.
HAROLD MILTON,
Secretary, Troy Chamber of Commerce.
EDWARD SOLBERT,
President, District Wildlife Federation.

The General Federation of Women's Clubs urges the consideration of and provision for adequate wildlife habitat in any program of development of natural resources. We are opposed to the destroying of one resource in the development of another which the building of Bruces Eddy Dam will do. We urge your consideration of alternate sides. Respectfully request that this wire be a part of your hearings record.

Mrs. MARIAN T. WEATHERFORD,
Chairman, Conservation Department,
General Federation of Women's Clubs.

Appreciate your interests and efforts in behalf of conservation of natural resources. Am deeply concerned now with appropriation for Bruces Eddy Dam in H. R. 12080, as power-company spokesmen have boasted that if they can get even $1 appropriated toward the dam they "can get it built." Urge you lend effort to have appropriation deleted from upcoming omnibus bill.

Regards.

DONALD THOMAS,
Manager, KRLC, Lewiston, Idaho.

We have wired Hon. Dennis Chavez, chairman Public Works Committee, opposing the including of Bruces Eddy Dam in Idaho's Clearwater River, in H. R. 12080 studies by wildlife agencies, to determine effects on big game and sea-run fish has not been completed. We sincerely request that you do all possible to stop this project from becoming part of H. R. 12080, and that this wire be placed in the hearing records.

BRUCE L. YEAGER.
President, Wildlife Federation of Oregon.

Object to authorization of Bruces Eddy Dam in H. R. 12080 or separate legislation. Dam would annihilate vast runs of steelhead and salmon, flood winter range, and seasonal migration routes for thousands of deer and elk. This dam pork-barrel project for timber company wanting log pond at public expense.

MORTON R. BRIGHAM.
Idaho Wildlife Federation,
Committee To Save the Clearwater Elk.

The unholy alliance of Army engineers, power interests, and timber barons would like to have the taxpayers foot the bill for a log pond above Bruces Eddy Dam. I hope you will oppose H. R. 12080.

Sincerely.

E. M. WYGANT, *Lewiston, Idaho.*

Senator KERR. Who is the first witness you have, Senator?

Senator DWORSHAK. Mayor A. B. Curtis, of Orofino. I understand he will make a statement for the two of them.

STATEMENT OF A. B. CURTIS, MAYOR, OROFINO, IDAHO

Mr. CURTIS. Mr. Chairman and members of the committee, my name is A. B. Curtis, mayor of Orofino, Idaho.

I appear before you today to urge that you include in the pending bill an authorization for the construction of the Bruces Eddy project on the North Fork of the Clearwater River in Idaho for flood control, navigation, power, and other purposes, as part of the comprehensive plan for the Columbia Basin substantially in accordance with the recommendations of the Chief of Engineers contained in his report on the Snake River and its tributaries dated April 25, 1955, printed as Senate Document 51, 84th Congress, with a provision that the power and generating facilities authorized may be constructed, operated, and maintained by a licensee, under the provisions of the Federal Power Act.

I would suggest to the committee that any such authorization provide further that, if within a period of 2 years from the date of the authorization an appropriate application was not filed with the Federal Power Commission, the Federal Government proceed with the construction of the entire project.

I appear today on behalf of numerous civic organizations, local wildlife conservation, and miscellaneous local government groups in the Clearwater River area of Idaho.

In addition to the above, I am also a director of the Inland Empire Waterways Association of Walla Walla, Wash.

Since 1918 I have lived and been continuously employed in the region of the proposed Clearwater dams development, as proposed by the Army Corps of Engineers.

In 1928 I became the chief fire warden of the Clearwater Timber Protective Association and State fire warden for the Idaho Department of Forestry.

In 1945 I became chief fire warden of the Potlatch Timber Protective Association and State fire warden for the Potlatch Forest Protective District.

All of these official positions I still occupy.

By reason of my intimate knowledge of our resources—water, forestry, and wildlife—I feel well qualified to speak upon this development of water resources as proposed.

The Clearwater River system from the records of 1894, 1933, and 1948 has been the principal flooder of the Snake River system. The flood control provided by the Bruces Eddy project, with 1,453,000 acre-feet of usable storage, would have major benefits along the lower Columbia River.

Had it been in existence in 1948, the Vanport disaster might not have occurred. Due to the rugged topography of the Clearwater Basin, the only site for natural-resource processing plants that are essential to the balancing of our economy are the limited flood plains area along the Clearwater River.

At present, plans and transportation routes serving them are in these areas. All expansion must be in these regions.

There has been comment to the press and statements made before congressional committees and governmental agencies that the Clearwater River development would eliminate Idaho's elk herd. I desire to refute such fantastic statements on the basis of my intimate knowledge of these resources since 1928.

Senator KERR. Just a moment. Is the Idaho elk herd a taxpaying agency of any kind in the State of Idaho?

Mr. CURTIS. Not that I know of.

Senator KERR. I thought that I knew what it meant, but I just wanted to be sure.

Mr. CURTIS. Yes.

I recognize the interest which sportsmen have in the area involved. I might add that I am just as interested in the protection of wildlife resources as any one of those who have expressed opposition to our projects.

Certainly they have a right to be heard. I regret to say that certain absentee wildlife critics have perhaps unwittingly become a front for obstructionists. Their ill-advised remarks are being made without basis of competent information, and have caused a wave of indignation throughout the Clearwater River Valley.

All local wildlife organizations are in strong support of the Clearwater River development. Only nonresident wildlife and conservation groups and wilderness societies are opposed.

All of the opposition stems from a handful of individuals who apparently, for some ulterior motive, desire to keep the Clearwater section of Idaho undeveloped, even at the expense of economic strife to Idaho citizens.

I am pleased to present statements from well-informed wildlife persons which will completely refute the misleading statements made concerning the loss of elk and deer. Our claims that wildlife interests will not be seriously affected are based upon the 1948–49 survey

of the State of Idaho Fish and Game Department and the United States Forest Service, both of which participated in a very comprehensive survey.

The above-mentioned winter season was the far worst of record because of unusual snow depth and severe temperatures which caused elk and deer to feed in lower elevations. It is well brought out in the joint survey that approximately 95 percent of the elk and deer herds are 25 miles or more above the Bruces Eddy pool area as proposed in the North Fork drainage and only a few scattered animals are believed to exist near the region of development.

On the Middle Fork of the Clearwater by far the greater majority of the animals range well above the proposed flowage area of the Penny Cliffs projects.

It is noted that the preponderance of objections come from people and organizations who are many miles away from Idaho and have merely joined a campaign of opposition at the request of a few.

Senator HRUSKA. Before you leave the subject of wildlife, may I ask this: It seems that some of the telegrams that have been referred to a little bit ago were directed to fish and sea-run fish. I notice in your testimony that you have consistently referred to big game.

Does that mean you are not interested in fish, or are fish mentioned somewhere later in your testimony?

Mr. CURTIS. I am glad you mentioned that, because fish are of so very little importance that it was not worth mentioning.

In 1 year there were only 35 salmon going through, and in the year 1954 there were none.

The steelhead fishing is a sport fishing. It is not a commercial fish, and we do have a little steelhead fishing in the Clearwater River, but it is relatively minor, as compared to other sporting streams.

Senator HRUSKA. Are those things covered in the 1948–49 report of the Idaho Fish and Game Commission?

Mr. CURTIS. No, there is no information whatsoever as to fish, but the Army engineers have performed a very fine survey and are doing a marvelous job in taking care of the fish situation; and, as I mentioned a moment ago, the commercial fish situation in the Clearwater is practically of no importance. It is of nil importance.

According to the survey of the Army engineers, I believe it was 33 fish.

Senator NEUBERGER. What about sports fishing? That is substantial; isn't it?

Mr. CURTIS. Yes.

Senator NEUBERGER. Steelhead?

Mr. CURTIS. Not nearly so much as in other areas. There is a very fine report on the number of steelheads, which was 2,000, which is very trivial as compared to 8,000 down in the lower Columbia.

Senator NEUBERGER. There is still a good fish run for a small river; isn't there?

Mr. CURTIS. Last week, Senator, I had the pleasure of taking a fishing trip with quite a few people and among them were some very fine sportsmen and fishermen.

Senator NEUBERGER. Including the president of the Idaho State Wildlife Federation?

Mr. CURTIS. That is right, including Mr. Ted Wagner, president of the State of Idaho Wildlife Federation.

Mr. Wagner is supposed to be one of the best fishermen in the State, and Mr. Ted Wagner cast his line all day, fished all day, and caught not one fish.

Senator KERR. You mean he didn't even catch one that got away?

Mr. CURTIS. He didn't even catch one that got away. I think there was one other fellow that did catch a squaw, or some such. As a matter of fact, I have thrown away all my fishing gear a long time ago.

Senator NEUBERGER. How about these representatives of the fish and wildlife federation from Pennsylvania and New Hampshire? Do you presume that they have been catching any fish in the Clearwater River recently?

Mr. CURTIS. I don't believe they have ever been there, sir. I was really speaking for the local people. There are only 2 or 3 of the local people who are opposed to it, and they sent that propaganda out through letters and suggested it and the rest of these clubs——

Senator NEUBERGER. I would like to ask you, to begin with this is something that interests me as a Senator.

Do you mean that when a person comes from another area and expresses an opinion on something, that it is really a non sequitur?

I have seen the Congressional Record any number of days just filled with letters and editorials against Hells Canyon from all parts or places in the United States way away from Hells Canyon.

I would never say those people had no right to express an opinion. Would you say those people had no right to express an opinion on damming the Clearwater River because they don't live out there?

Mr. CURTIS. I would say this, Senator, we are glad to have the opinion of the people from New Jersey and Pennsylvania and New Hampshire, and so on. However, I wrote to some of the people who protested this, and I didn't have the courtesy of an answer. I wanted to invite them out.

I wrote to half a dozen wildlife groups and not even one wrote a reply.

Senator NEUBERGER. I take it, Mayor, that you are not at all opposed to them expressing their opinion. You are just trying to urge the committee not to let them make the decision for Idaho and for the committee. Is that right?

Mr. CURTIS. That is right.

Senator NEUBERGER. I would presume that you folks in Idaho, just like those who live in Hells Canyon, don't want to see those removed to be the controlling element in the decision on it?

Mr. CURTIS. Why don't they come and see for themselves?

Senator HRUSKA. Mr. Chairman, I might observe that from the telegrams, and some quite recent in that regard, I hold a telegram from Mr. Charles Einspahr of the Nebraska Council of Sports Groups, and he indicates that studies by wildlife agencies to determine the effect on big game and fish are not completed. It seems to me that if that is their attitude, that is fine. I can see some distinction between people from all over America speaking as authorities on the subject, and those who express an interest, and those who are willing to be governed by the facts and by findings from competent authorities.

Senator KERR. Are there any further questions?

Senator NEUBERGER. I would like the witness to finish his testimony first.

Mr. CURTIS. And I would like to have a map over here, to which I will come back to wildlife for a further statement.

We in Idaho must broaden our tax base. We are facing a financial crisis in Idaho due primarily to heavy Federal ownership of our natural resources and almost exorbitant taxes. Personal income tax and property tax cannot go higher. This briefly is the predicament that our State is in, and we do not have to look far to see what can happen when too much of a State's resources comes under Government or public control.

It is extremely important, when considering the economy of Idaho, to understand that two-thirds of the land area of Idaho is controlled by the Federal Government. The State and political subdivisions of the State receive very little revenue from this Federal ownership. Idaho, by geographic location and its mountainous terrain, has also been limited in its industrial expansion. We have been a natural resource and raw-product State to a large degree.

Tax valuation of Clearwater County is about $9½ million. The county is 52 percent federally owned, and is largely supported by timber resources in Federal, State, and private ownership. The area surrounding the pool of the proposed Bruces Eddy Dam is largely privately owned.

The timber values are being reduced each year by logging operations, and within a relatively short time the county will be facing a crisis in the maintenance of its schools, roads, and other community services unless a new broader tax resource can be found to help sustain the economy.

With Bruces Eddy Dam and Reservoir being built by the Federal Government to supply downstream flood-control benefits, and the power components constructed by a private utility the county can face the future with some assurance of future economic self-sufficiency.

At the end of 1954, 44 percent of all State and local revenue was derived from ad valorem or property taxation. This is an unhealthy condition as the mere ownership of property does not assure income.

There are two ways to correct this situation, by either changing our tax structure within the State or by gaining new taxpayers. The second of these alternatives is very attractive to a State like Idaho. This is particularly true if the new taxpayer will furnish more money to the State and local units of government than he demands in services.

Power features of the Bruces Eddy project could be an excellent example of business enterprise which will furnish a large capital addition to the ad valorem base in Idaho.

Government authorization does not mean immediate construction, and with competition from every river basin in the country for Federal funds, any money that can be developed from such private investment sources offers tremendous incentives for making the project a reality at an accelerated time table.

We know that the Government alone, by itself, is not going to provide the million dollars a day needed to keep up with the power demands in the Pacific Northwest region. Taxpaying utilities that are serving Idaho must grow with the State's population.

Under present all-Federal development, Idaho citizens are regarded as second-class consumers, not entitled to the same consideration as the public power beneficiaries of our neighboring States.

I think I speak for most of the people of Idaho when I say we are opposed to full Federal authorization of the project including the power facilities.

We are fearful that after any such authorization, the full Federal development would lay dormant like the lower Snake projects.

In a letter dated June 1, 1955, from Secretary of the Army Robert T. Stevens addressed to the Honorable Dennis Chavez, chairman, Committee on Public Works, United States Senate, Washington, D. C., which was written concerning local utility participation for the electrical generation on Bruces Eddy and Penny Cliffs, Secretary of the Army Stevens in part stated:

> In view of the fact that a large proportion of the benefits of the projects consist of flood-control benefits and of benefits to downstream Federal dams, the Chief of Engineers considers that construction of either project as a whole is unlikely to be financially profitable for any licensee unless some form of Federal financial participation is authorized.
>
> A partnership arrangement, under which the Federal Government would build the dam and non-Federal interest the power facilities, could be developed so as to conform generally to previously proposed partnership plans.

Now, Senator, I mentioned to you a moment ago a few exhibits, and I would just briefly go over these and turn them in for the record if you so desire.

Senator KERR. That will be all right. They may be filed with the record.

Mr. CURTIS. Thank you very kindly. I have here a resolution of the Clearwater Dams Organization, an organization of several people in the Clearwater area who are out working very actively trying to implement our Bruces Eddy project.

I have here a statement from Mr. Irad Carr, a man of many years' experience in conducting tours and fishing parties throughout the area we are discussing, and he states here his reasons why he thinks it would have no real effect on the wildlife and game.

Then I have one from Mr. Vern O. Thornton, who has lived here and conducted fishing parties and hunting parties for many, many years.

Then I have a resolution from the Idaho Outdoor Association. Incidentally, there are three of them in the valley, local chapters, at Orofino, and two others.

Then a letter from Mr. Charles Frensdorf, who has lived in this region and knows it intimately from flying over it frequently and otherwise.

Then a letter from Perd Hughes who has also lived in this area a long time and is very familiar with it. Then a resolution of the North Idaho Chamber of Commerce, followed by a resolution of the Board of County Commissioners of Clearwater County, Idaho.

I don't like to get into politics, but this board happens to be all Democrats, and they are very heartily in favor of this project.

Then there is a telegram and a letter from the Grangeville Wild Life Association by Robert Bartz, president, and the letter by C. I. Stellmon.

Then I would like to go to the map, if I have your permission.

Senator KERR. All right, sir.

Mr. CURTIS. Senators and gentlemen, this is a map made up of the national forests, the Middle Fork and the North Fork.

This here [indicating] represents the Clearwater National Forest, and represents practically the entire forest area. This here [indicating] is the Bitterroot National Forest. It extends on into Montana.

Then here is the Tolo National Forest and the Nez Perce National Forest. I am discussing that because here is the North Fork, and the Bruces Eddy project is located right here [indicating].

I am not going to speak so long.

Senator KERR. Where is the Bruces Eddy project?

Mr. CURTIS. Right here is the Bruces Eddy project, and Orofino is something like 2 air miles as the crow flies or 4 miles around by the highway.

I live here in Orofino, and I am the mayor serving my third term. I have been the manager of all these forests since 1928.

Senator NEUBERGER. Who owns those forest lands?

Mr. CURTIS. The green lands are national forests. The white lands are largely State of Idaho. This particular section [indicating] is all Idaho, 40's and 160's, and then here are something like 40,000 acres public domain, and that is public power supply land, and the Great Milwaukee Railroad, the Diamond Match Corp., the Ohio Match Corp., the Potlatch Corp., and all of that ownership are in here.

This map, gentlemen, is an exact facsimile of the United States Forest Service showing the major elk herds in Idaho, and the worst winter we had a few years ago which was 1949 squeezed the elk into the lower canyon and developed a very minimum amount of feeding in the very worst winter you could possibly have. It was 298,000 acres of land which they grazed upon. That is shown in green.

The dark green is the very critical winter range. That is where the elk are compressed into deep canyons by lack of feed.

Senator DWORSHAK. Where will be the back point of the project?

Mr. CURTIS. Twenty-five miles and fifty miles from the center of it. Some of these elk herds you hear about in Idaho—and I hope you come out and shoot a few of them, I do it and enjoy it. I am just as good a sportsman and conservationist as the next man.

I take care of them and I think I am just as good a sportsman as the nearest one, and better than many of them. You will find that they are 25 miles and more above the flowage of the Bruces Eddy pool.

Senator NEUBERGER. To begin with, Mr. Curtis, I would like to say this: You are very critical with so-called nonresidents, and I am not nearly so familiar with that area as you are but I have been all through it many, many times, and I am somewhat familiar with it.

I have a great many letters from people who are residents of the State of Idaho who express their opinions.

Isn't it a fact that the Idaho Wildlife Federation chapters, many of them, voted in favor of this project?

Mr. CURTIS. Not all the chapters of Idaho. There were some, but those were only the ones who were out of the area.

Mr. Cullen has testified against it and so have the rest of them also in other parts of the State.

Senator NEUBERGER. I have a letter from the president of the Lewis and Clark Wildlife Club. Isn't he closer than Grangeville?

Mr. CURTIS. No.

Senator NEUBERGER. How far is Grangeville?

Mr. CURTIS. I am talking about Clearwater.

Senator NEUBERGER. But you said Grangeville is how far? Grangeville is not very far, is it?

Mr. CURTIS. It is about 50 miles.

Senator NEUBERGER. How far is Lewis and Clark Bridge?

Mr. CURTIS. It is a little less than 50 miles.

Senator NEUBERGER. So they are not far away, are they?

Mr. CURTIS. We are talking about Clearwater and at times only 10 miles can make the difference. It is just over the hill.

Senator NEUBERGER. You mentioned, for example, that Grangeville is much closer than these other groups, and I am trying to show you that there is a volume of resident opinion right in your own State that is opposed to these projects.

You have been very critical of the protests from people from the East who are very critical of it, and I am trying to show you that there are people in Idaho who are familiar with the outdoors and who are still opposed to it.

Isn't it possible that these people in the East are getting their information from the people in Idaho who are perhaps just as familiar with it as you are? They might not share your viewpoint, but what I am saying is it isn't because they aren't as familiar with it.

Mr. CURTIS. I disagree with it.

Senator NEUBERGER. That is quite a different thing than saying this is all an absentee situation. Of course you disagree and that is quite your right to disagree, and you may be right and they may be wrong, but the point I am trying to establish is that there is a great deal of resident opinion in your own State of Idaho that is opposed to these Clearwater projects.

Mr. CURTIS. That may be true, but those who live there and know about it, it would be a very, very small percentage, say, less than one-half of 1 percent. It would be less than 1 out of 2. You mentioned, I believe, a person who is the secretary of the wildlife group who is opposed to any of these projects. He is an ardent sportsman. He is opposed. He believes it, and he has perhaps more than anything else spread the propaganda of being opposed to it but Mr. Brigham happens to represent far less than 1 percent of the people who like it.

Senator NEUBERGER. I do think you will agree that Mr. Brigham is not an absentee wildlife critic. You would not so describe him, would you?

Mr. CURTIS. I think he is probably absentee.

Senator NEUBERGER. You do not regard Mr. Brigham as a resident?

Mr. CURTIS. Certainly not. I don't think he would be a resident if he lived there.

Senator NEUBERGER. You regard Mr. Brigham as a nonresident?

Mr. CURTIS. Yes, he is 40 miles away.

Senator NEUBERGER. Where is your hometown, Senator Dworshak?

Senator DWORSHAK. I come from the entire State of Idaho. I do not come from one town.

Senator NEUBERGER. Then Mr. Brigham is an officer of the wildlife club of Idaho and it might be that he would feel that he represents the whole State as a wildlife group. He does not represent the whole State as a Senator does, but he represents that entire group.

Mr. CURTIS. He represents that group but there are a number of the membership who are opposed to it.

Senator NEUBERGER. But they are on record opposing it?

Mr. CURTIS. Opposing it.

Senator NEUBERGER. Yes, and yet you still say because he lives in Lewiston he is an absentee critic? I just want to get that clear.

Mr. CURTIS. I am talking about the local people who live in Clearwater County and upstream areas.

Senator NEUBERGER. You think anybody else is an absentee? Is that your stand—that anybody else except the Clearwater resident is an absentee critic?

Mr. CURTIS. I would consider the ones in Lewiston to qualify as absentee sportsmen.

Senator NEUBERGER. I have a telegram here, for example, from many who are opposed to Bruces Eddy Dam; one from Mr. Maurice Harland, secretary of the Whitepine Sportsman Association, and Mr. Edward Solbert, president, district 2, wildlife federation. Are they likewise absentee critics?

Mr. CURTIS. I don't think they have ever seen the project. I think they are absentee.

Senator NEUBERGER. I see. I just want the record to show that these people from the State of Idaho are regarded by you as absentee, and you regard Mr. Brigham as an absentee critic also.

I am interested in the last part of your testimony about the partnership aspects of this project. You believe that the projects at Bruces Eddy and Penny Cliffs should be constructed by the Government but with the private utilities contributing the powerhouse portion, of course, and then operating the powerhouse and receiving it back?

Mr. CURTIS. If it could be worked out as was proposed in the Green Peter project, in Oregon.

Senator NEUBERGER. The Green Peter project, I am sure, was authorized as a Federal project. It is not a partnership project. Certain private power companies would like to make it a partnership because they get the powerplants——

Mr. CURTIS. There are some that are partnerships since 1905, aren't there?

Senator NEUBERGER. Will you give me an example of a partnership project in an operation presently in operation, in which the private utility company has the powerhouse and the Government has put up the structure of the dam?

Mr. CURTIS. In the Northwest?

Senator NEUBERGER. Yes.

Mr. CURTIS. Of course, there are several being proposed but there are none yet.

Senator NEUBERGER. The ones that are pending are the ones that are presently pending as Federal projects but duly authorized so that they can become partnership projects.

Mr. CURTIS. I don't know. I can't possibly argue that because I am not as well informed as you are, but I am trying to tell you what the people of my county want. We think there should be some upstream benefits as well as downstream benefits that we must like also.

Senator NEUBERGER. Let's just forget the wildlife controversy and conservation controversy. We are not talking about that now.

Why do you believe it should be a partnership? Why should the project not be a public project like Grand Coulee and some of those others?

Mr. CURTIS. I am glad you asked me that. We have something like nine thousand families. Our teachers are probably being paid the least of any teachers anywhere. The county salaries sound like county aid. Our roads are in the most deplorable condition. We don't even have gravel on some of them. It is either mud or dust. We can't run our county.

We have taxed everything to the very limit. I explained that in my previous testimony very carefully. We absolutely must have something to broaden our tax base.

Senator NEUBERGER. Well, how would a partnership dam——

Mr. CURTIS. Because we would be able to tax them and get some money out of them, out of the utility providing the kilowatts.

Senator NEUBERGER. Under that sort of an arrangement, who would own the partnership dam?

Mr. CURTIS. I don't know. I don't care.

Senator NEUBERGER. You have come here and advocated a partnership project in a very controversial situation and a very large project.

Are you aware of how this would operate? Who would own the dam? Could you tell us who would own the dam?

Mr. CURTIS. I have mentioned that I have felt that the Army Corps of Engineers should build the dam and own it and regulate it and control the water.

Senator NEUBERGER. How do you feel you can tax the Army?

Mr. CURTIS. We can't, but we could tax the generators and transmission lines and so on, if that is all we can get.

Senator NEUBERGER. Let me get you straight. You think you can get your county out of trouble by taxing the generators and transmission lines of the private power company.

Are you familiar with the information that has been introduced regarding the partnership of John Day in which the private utility company gets the power. Isn't that the only bill under that partnership arrangement at that time?

Mr. CURTIS. Yes, if you take into consideration the Priest Rapids project, but——

Senator NEUBERGER. The reason I didn't question that is because that is owned by the public agency, and the tax field wouldn't enter into it.

Mr. CURTIS. Yes.

Senator NEUBERGER. Under the partnership arrangement, I would like to ask you a few quetsions. Who would own the dam under the partnership plan?

Mr. CURTIS. I really haven't thought about that bill for a long time. I believe that the Federal Government would own it.

Senator NEUBERGER. The Federal Government would own it? Let's ask the lawyers about that.

General ITSCHNER. Our counsel is with us.

Senator NEUBERGER. The Federal Government would own the dam and the private utility would generate power, and therefore would own the generators and the powerhouse, but not the dam, is that correct?

Mr. KIMBALL. Yes.

Senator NEUBERGER. And the private utility would get all the power from the dam for 50 years?

Mr. KIMBALL. I believe that is correct, as I recall the bill.

Senator NEUBERGER. They would get all the energy; is that not correct?

Mr. KIMBALL. I believe that is correct.

(The information is as follows:)

Examination of H. R. 5789, the current proposal for partnership development of the John Day project, discloses that it would provide for Federal ownership of the entire project including the powerhouse and generators.

(An additional statement on this matter follows:)

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
July 24, 1956.

Hon. ROBERT S. KERR,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: You may recall that during the hearings on H. R. 12080, with respect to inclusion of the Bruces Eddy project as a possible partnership project, I discussed with the mayor of Orofino, Idaho, the issue of the taxability by local governments of partnership projects patterned on the legislation proposed for John Day Dam.

In response to my requests of General Itschner, I have now received from him the attached letter, which clearly confirms my statement that such partnership projects would be wholly owned by the United States—whatever economic benefits from them might be turned over to private "partners." Thus, these structures would be beyond local tax laws.

I suggest that this letter from General Itschner be placed in the hearing record at the appropriate point in the discussion.

Sincerely,

RICHARD L. NEUBERGER,
United States Senator.

JULY 19, 1956.

Hon. RICHARD L. NEUBERGER,
United States Senate.

DEAR SENATOR NEUBERGER: Reference is made to the question raised at the recent hearings before the Flood Control—Rivers and Harbors Subcommittee of the Senate Committee on Public Works with respect to the ownership of the powerhouse and generators of the proposed John Day project under the proposal for construction of this project under the so-called partnership plan.

The current proposal for construction of this project under a partnership arrangement is contained in H. R. 5789, introduced in the present Congress by Congressman Coon on April 21, 1955. From an examination of this bill it is clear that under its provisions all features of the John Day project, including the powerhouse and generators, would be owned by the United States. Section 5 (b) of the bill refers to the "construction of the federally owned John Day project."

The contribution of funds as proposed in H. R. 5789 is similar to local contributions toward navigation projects, authorized in section 4 of the River and Harbor Act of March 4, 1915 (33 U. S. C. 560) and toward flood-control projects, authorized by section 5 of the Flood Control Act of June 22, 1936, as amended (33 U. S. C. 701h). In these cases the projects are wholly owned by the United States.

Sincerely yours,

E. C. ITSCHNER,
Major General, United States Army,
Assistant Chief of Engineers for Civil Works.

Senator NEUBERGER. Thank you very much.

Would you think your county would be able to get out of trouble by being able to tax these generators and a transmission line, Mr. Curtis?

Mr. CURTIS. It would be very helpful.

Senator NEUBERGER. That is why you preferred a partnership arrangement rather than owned by the Federal Government?

Mr. CURTIS. We need something for taxation. We need it very badly.

Senator NEUBERGER. Have you made any comparison at all in your area of comparative rates charged by the Bonneville Power Administration and by the Idaho Power Co. for electrical energy?

Mr. CURTIS. I am not an expert on that, and I would just as soon say no.

Senator NEUBERGER. I just wondered why you favor one method over another. I am just trying to find out.

Mr. CURTIS. The reason I said this is because of our tax benefits for our people. You certainly shouldn't condemn me for talking about my folks, the residents of our county.

Senator NEUBERGER. I haven't condemned you.

Mr. CURTIS. It kind of appears that you are climbing after me.

Senator NEUBERGER. I would say this, Mr. Curtis, that you have come here today and talked about people in other parts of the country, and condemned their motives and opinions, and I think in view of that I wouldn't be necessarily climbing on you—you have been speaking, I think, a little sharply about these people.

Mr. CURTIS. I have been spoken a little bit sharply to about these wildlife people.

Senator KERR. I want to say this, Mr. Curtis: I understand the sentiments of my friend from Oregon; but you are free to express your opinion, and I am sure you can take care of yourself in this discussion, but there is no reason for the chairman to say that he agrees with all you say, but he is glad you said it, and he is sure that Senator Neuberger is, too; he is pressing his position in this matter, which is commendable and fine; but the chairman is saying to you that you are free to say anything you want to say.

I don't know that you make any ground by intimating that there might be a liar outside of Idaho.

Mr. CURTIS. You mean they are all outside of Idaho?

Senator KERR. Thank you, Mr. Curtis, for appearing today.

Mr. CURTIS. Thank you, Senator. Come over and visit that State of ours.

Senator NEUBERGER. You have a beautiful country, and it is one of the most beautiful parts of the United States.

Mr. CURTIS. Yes; it is.

Senator KERR. Senator Dworshak, do you have another witness?

Senator DWORSHAK. No; I don't have any more. I understand that there are other witnesses who want to speak on this matter, however.

Senator HRUSKA. The next witness is the Corps of Engineers on the Middle Snake River, in Idaho.

General ITSCHNER. The report on the Middle Snake River, Snake River, and tributaries, Wyoming, Idaho, Oregon, and Washington, was prepared pursuant to resolution adopted by the Senate Public Works Committee on October 5, 1951. It was forwarded to the Congress by the Secretary of the Army on June 1, 1955, and has been published without appendixes as Senate Document 51, 84th Congress, 1st session. The report was prepared jointly by the Bureau of Reclamation and the Corps of Engineers.

I shall confine my remarks this morning to that portion of the report which was prepared by the corps and specifically to the projects recommended for construction, Bruces Eddy and Penny Cliffs, in the Clearwater Basin in the State of Idaho.

Clearwater River is formed by the confluence of the Middle and South Forks of the Clearwater River at Kooskia, Idaho, and flows generally northwestward to where it is joined by the North Fork, and thence westward to where it joins the Snake River at Lewiston.

Industry in the area is largely confined to forestry products. There is a considerable amount of agriculture in the river valleys.

Floods on the Clearwater River generally occur in the spring as a result of snowmelt. A recurrence of the maximum flood of record today would cause damages in the Clearwater Valley estimated at $3 million. Discharges from the river during the 1948 flood represented about 10 percent of the flood flows on the lower Columbia, and actually contributed in the neighborhood of 16 percent to the flood crest on the Columbia. The Clearwater River is a very serious and major flood contributor to the floods on the lower Columbia River, much more so than the Snake River.

Senator HRUSKA. Could you give us relative figures?

General ITSCHNER. Yes, sir. The Snake River above the mouth of the Salmon River in the 1948 flood, with the conditions existing at that time, contributed only 5 percent to the flood crest, and the Salmon River, which is a tributary of the Snake above the mouth of the Clearwater, contributed about 10 percent.

The Snake River actually today, because of additional storage that has been constructed, or for which construction is underway, would have contributed much less than even the 5 percent. So we see that the Clearwater River is a major contributor to the floods on the main stem of the Columbia River.

I would like to be fair about it and say that perhaps not all floods would have the same pattern of flooding that the 1948 flood had, but the statement still stands that in every flood the Clearwater is a major contributor to the floods in the Columbia River.

Senator HRUSKA. Have you figures readily available for the runoff at Lewiston for the Snake and at Orofino, for the Clearwater?

General ITSCHNER. Yes, sir. Lewiston is at the mouth of the Clearwater. That percentage I gave you applied at Lewiston on the Clearwater River.

Senator HRUSKA. That was the 1948 flood?

General ITSCHNER. Yes, sir.

Senator HRUSKA. Have you an annual runoff?

General ITSCHNER. I can give you annual runoffs at Lewiston and at the North Fork of the Clearwater at its mouth.

Senator HRUSKA. Insert them in the record at this point.

(The information is as follows:)

The average annual runoff of the Snake River near Lewiston, Idaho, including the runoff of the Clearwater River, is 34,480,000 acre-feet. The average annual runoff of the Clearwater River near its mouth is 9,981,000 acre-feet.

General ITSCHNER. I make this point about the great flows in the Clearwater because additional flood-control storage capacity is urgently needed. There is none now on the Clearwater for the accomplishment of the main control plan of the Columbia River Basin, and

the proposed Bruces Eddy and Penny Cliffs projects would be valuable additions to this main control plan.

The Bruces Eddy project would be located on the North Fork of the Clearwater River about 2 miles above its confluence with the Clearwater River, which is about 41 miles upstream from Lewiston, Idaho, at the point of its confluence with the Snake River. It would consist of an earthen core rock-filled dam 570 feet in effective height. It would have a power installation at site of 240,000 kilowatts. The reservoir would provide 1,433,000 acre-feet of usable storage.

The estimated cost of the project is $123 million. Its benefit-cost ratio is 1.74 to 1.

I might say that the cost of generating power at the Bruces Eddy project, including the firming-up of power downstream, is only 1.87 mills per kilowatt-hour, an extremely low value.

Senator HRUSKA. Do you figure cost on the tax foregone basis?

General ITSCHNER. The benefit-cost ratio was figured on the basis of taxes foregone. But as I indicated earlier, the taxes foregone feature is not considered in allocating costs from which appropriate pay-out must be obtained.

The Pacific Northwest Power Co. has been issued a preliminary permit for investigative purposes by the Federal Power Commission on the Bruces Eddy project. It was issued on the 18th of August 1954 for a 3-year duration.

Our greatest interest is in the Bruces Eddy project, of which I have spoken. The other project, a part of the same plan, is the Penny Cliffs project, which is located on the Middle Fork of the Clearwater River, 4 miles upstream from the town of Kooskia, Idaho. It would consist of an earthen core rock-filled dam 590 feet in effective height, creating a reservoir with 2,300,000 acre-feet of usable storage.

The power installation at the site is 292,000 kilowatts. The estimated cost of the project is $200 million. And the benefit-cost ratio is 1.5 to 1.

The cost of power from Penny Cliffs project, including the benefits at downstream plants, is at the very low figure of 2.22 mills per kilowatt-hour.

Both projects will materially increase power benefits to the run-of-the-river power dams downstream, some of which are already built, some of which are under construction, and the remainder of which are authorized but have not been started. After consideration of the views of the governors of the affected States and other agencies, the Chief of Engineers recommends the construction of both Bruces Eddy and Penny Cliffs project. The Bureau of the Budget, in commenting on this report, interposed no objection to its submission to the Congress, but stated that authorization for completed Federal development is not in accord with the President's program until the possibility of local participation has been fully explored.

In transmitting the Chief of Engineers' report to the Congress the Secretary of the Army recommended the authorization of the Bruces Eddy and Penny Cliffs projects at an early date, and recommended that this be accomplished by means of a partnership arrangement, preferably one similar in principle to H. R. 4662, for the Green Peter and Cougar projects in Oregon, under which the Federal Government would build the dam and non-Federal interests the power facilities.

Under this arrangement the participating company would be required to pay the cost of the project allocated to power at the site.

Mr. Chairman, yesterday there were some comments made about the effect of the Bruces Eddy project on fish and wildlife values. If I may, I would like to comment on those very briefly.

Senator HRUSKA. Yes. Are comments thereon and findings included in the Chief's report?

General ITSCHNER. There are some comments in that report, sir. I thought I might supplement them.

Senator HRUSKA. I would like to have you highlight them for the record.

I might say at this point in the record, that while we are glad to have the report which you make on Penny Cliffs Dam site, it should be made clear for the sake of the record that there was no request made by anyone for inclusion of that dam in the pending omnibus bill.

General ITSCHNER. Yes, sir; I did understand that. That is why I wanted to emphasize the Bruces Eddy project.

Senator HRUSKA. The chairman understood it also, but I wanted the record to be clear on that point.

General ITSCHNER. I shall limit my remarks on the fish and wildlife aspects of the project to the Bruces Eddy project.

I might say in all fairness that the problem is probably greater at the Penny Cliffs site than it is at the Bruces Eddy site and that is one of the reasons why we favor the work on the Bruces Eddy site before the Penny Cliffs dam is started.

Comments were made yesterday by fish and wildlife interests as to the fish values that would be destroyed by the Bruces Eddy project. I thought it would be therefore interesting to you, Mr. Chairman, and the committee, to have the facts with regard to the 1954 fish count on the Columbia River.

I might say that the 1954 season was an unusually poor one for fish on that river. But fortunately on the Columbia River the fish are counted, actually counted at several points, so we know how many fish go up the river. Every fish is counted by species. At Bonneville Dam, which is the lowest dam on the river, 40 miles or thereabouts east of Portland at the point where the effect of high tides is no longer felt in the river, that year we counted 457,000 salmon and 176,000 steelhead trout.

At the Lewiston Dam at the mouth of the Clearwater River, in which we are interested, the count was no salmon and 9,000 steelhead.

The average count for a period of years at the Lewiston Dam showed 33 salmon and 8,000 steelhead. We estimate—and it is purely an estimate—that approximately 25 percent of all of these fish will find their way into the North Fork. The remainder will either spawn in the main stem of the Clearwater River—and it is quite a spawining area—or they will go into the Middle Fork or the South Fork to spawn.

If that is true, then there would be no salmon going past the Bruces Eddy site and 2,250 steelhead going past that site out of the 176,000 steelhead that went over the Bonneville Dam.

The fish and wildlife witnesses stated that the Hells Canyon area of the Snake River is not an area in which wildlife would have been affected seriously by the construction of a high dam. We agree. We

think wildlife would not be seriously affected by the construction of a dam in that reach of the river. But past that site, the same year, went 4,000 salmon and 5,000 steelhead, or approximately 4 times as many fish as we believe went past the Bruces Eddy site. So whatever effect a dam in the general Hells Canyon reach would have had upon fish, the effect was only one-fourth as great at the Bruces Eddy site.

So we contend that fish will be affected very slightly at the Bruces Eddy sight.

Senator HRUSKA. Would you care to comment, General, on the testimony which was given here yesterday, on which there was a sharp conflict, in regard to the bottom lands which would be flooded and which are now used by elk and deer? Have you any information on that?

General ITSCHNER. Yes, sir; we have.

Senator HRUSKA. You recall the maps that were furnished us, and the dispute which occurred with reference to the great distance away from the impounded waters which the elk and the deer used for their wintering territory.

General ITSCHNER. I can well understand, sir, that there might be a very honest difference of opinion.

Senator HRUSKA. So can I. I understand that.

General ITSCHNER. We would look to the State of Idaho Fish and Game Commission and the United States Fish and Wildlife Service and other such agencies for assistance in providing that information and we have. We have spent hundreds of thousands of dollars in the Pacific Northwest, through contracts with all the State fish and game commissions and the United States Fish and Wildlife Service in an endeavor to solve these wildlife and fish problems.

However, specifically with regard to the elk problem on the North Fork of the Clearwater River in the vicinity of Bruces Eddy Dam we feel that this dam is within the area of the winter range used by the elk herd of the region, but only a very, very small percentage of that winter range lies within the proposed reservoir.

We know that there are benchlands above the river which are used by the elk. But those benchlands are above the elevation of the pool.

Senator HRUSKA. When you say a small percentage, as you just have now, would you care to indicate the range of that percentage?

General ITSCHNER. It is hard for me to do so, because I do not really know.

Senator HRUSKA. Is that detail included in the report of the Fish and Wildlife Service?

General ITSCHNER. We have not been able to obtain such figures yet. We hope to get such figures. But I will say that an effort to find elk one winter—I believe it was the winter before this past one—by searching the area with a small airplane so that the elk could certainly be seen, failed to disclose any elk in the area of the reservoir. There may be years when elk are in that area.

Senator HRUSKA. How long would that reservoir be?

General ITSCHNER. Approximately 50 miles long. It gets very thin at the upper end because the valley is rather sharp. The portion of the river to be inundated by the reservoir has very steep sides, with little forage for animal life in the bottom of the valleys. Most of the browse

is located on benches, practically all of which are above the pool elevation.

The major winter feeding areas are situated on side draws of the river upstream from the reservoir areas. A cooperative big game census by the United States Forest Service and the Idaho Department of Fish and Game during the most critical winter in recent years, which was that winter of 1948–49 mentioned by the witness yesterday, indicated that about 100 elk were within the 9.5-mile length of the upper reaches of the Bruces Eddy Reservoir area.

The census also indicated that approximately 25 percent of the recorded elk mortality was caused by drowning resulting from the animals being frightened by automobiles, airplanes, and movement on foot in concentrated areas. Construction of the dam should be accompanied by a concerted effort on the part of wildlife agencies to regulate the elk herd and to improve the supply of available winter feed. It might properly be a charge against the cost of maintaining and operating the dam to provide such winter food in the few severe winters when feeding the elk is necessary.

That is all that I have on this project, sir.

Senator KERR. We will now hear Mr. E. A. Seaman.

Mr. SEAMAN. May I have permission to give my statement following Mr. Brandborg, of the National Wildlife Federation?

Senator KERR. You may do that. Do you have a copy of your statement, Mr. Brandborg?

Mr. BRANDBORG. Yes, I do.

STATEMENT OF STEWART M. BRANDBORG, ASSISTANT CONSERVATION DIRECTOR, NATIONAL WILDLIFE FEDERATION

Mr. BRANDBORG. Mr. Chairman, I am Stewart Brandborg.

Senator KERR. I would like to say, Mr. Brandborg, that the committee is going to hear you through. I see that you have quite an extensive statement. We would be delighted to have that made a part of the record and have you give it to us in abbreviated form if you could do so to your own satisfaction. I will let you be the judge.

Mr. BRANDBORG. Thank you very much, Mr. Chairman.

I recognize that my statement is unduly long and I have consulted with some of the other people here from the conservation groups. While they wish to supplement my remarks, they indicated that they would, for the most part, submit their statements for the record, and that would allow me a little extra time.

Senator KERR. Very well.

Mr. BRANDBORG. The National Wildlife Federation is an association of State conservation leagues which are made up of local and county clubs. A citizens' organization with affiliates in the States, Alaska, and the District of Columbia, it is financed by civic-minded people throughout the Nation who every year send in contributions in exchange for wildlife-conservation stamps.

I am here today to express the opposition of the National Wildlife Federation to the proposals for authorization of Bruces Eddy Dam on the North Fork of the Clearwater River in Idaho. As a native of northern Idaho and as one who has conducted wildlife investigations within the Clearwater drainage for the Idaho Cooperative Wildlife

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Research Unit and the Idaho Department of Fish and Game, with which I was associated as a biologist from 1948 to 1953, I feel qualified to offer some observations that may be of value to this committee.

The proposals for construction of this dam, as offered separately by the Corps of Engineers and the Pacific Northwest Power Co., and in the current "partnership" plan under which the Federal Government and private power interests would share in the cost of the project, have met with solid opposition from the (1) National Wildlife Federation; (2) its affiliate in Idaho, the Idaho Wildlife Federation; and (3) the tri-State group representing three National Wildlife Federation affiliates of the Middle Snake River drainage, the Idaho-Oregon-Washington Wildlife Federation.

Another statewide organization in Idaho, the Idaho Outdoor Association, has also voiced strong opposition to this dam. Each of these groups have opposed proposals for Bruces Eddy Dam and its companion project, Penny Cliffs, on the Middle Fork of the Clearwater River. I would like at this time to request permission to have the resolutions of these organizations, which more clearly define their position on these proposals, included in the record of this hearing.

Senator KERR. They may be made a part of the record.

(The resolutions follow:)

RESOLUTION PASSED AT THE 18TH ANNUAL CONVENTION NATIONAL WILDLIFE FEDERATION, CHICAGO, ILL., MARCH 11, 12, 13, 1954

Whereas dams are now proposed for construction at Bruces Eddy and Penny Cliffs on the Clearwater River in northern Idaho which will destroy important runs of anadromous fishes, as well as resident trout populations, and inundate a major part of critical winter ranges of one of the Nation's largest elk herds; and

Whereas the reservoirs of the Penny Cliffs Dam would extend some 6 miles into the Selway-Bitterroot Wilderness Area in the national forest: Now, therefore, be it

Resolved, That the National Wildlife Federation reaffirm its traditional policy in the specific case of the above-mentioned Clearwater dams; and be it further

Resolved, That further investigation be made of these proposed projects by the Fish and Wildlife Service, United States Forest Service and Idaho Department of Fish and Game to determine their effect on the fish, wildlife, wilderness area and the recreational values, and that in future planning and investigation, fish, wildlife and recreation interests be given full and equal stature together with the States and construction agencies, whether private or public, to the end that the vital resources of this area be protected from ill-advised destruction from which there can be no recovery; be it still further

Resolved, That final consideration of the proposed projects be postponed until the results of the above recommended investigations on the fish, wildlife and recreational resources of the Clearwater River are available.

RESOLUTION PASSED BY THE IDAHO WILDLIFE FEDERATION AT ITS ANNUAL MEETING ON JANUARY 15, 1956

Be it resolved, That the Idaho Wildlife Federation favors construction of dams in the Hells Canyon reach of the Middle Snake and at Mountain Sheep and Pleasant Valley sites, provided;

(*a*) Damage during and after construction to fish and wildlife is minimized insofar as economically possible.

(*b*) Studies to determine the effect of these dams on fish and wildlife are financed by the construction agencies.

(*c*) Restitution for any damages to fish and wildlife is provided to the affected States.

(*d*) No water is diverted from the Salmon River at any time in the future.

(*e*) Recreational facilities of the projects are developed.

RESOLUTION PASSED BY IDAHO WILDLIFE FEDERATION AT ANNUAL CONFERENCE IN BOISE, IDAHO, JANUARY 15, 1956

Whereas Senate Document 51, a report of the Army engineers on the Middle Snake River and its tributaries, does distort and withhold facts in relation to fish and wildlife problems connected with building dams on the Clearwater drainage of Idaho;

Whereas without full and complete information on which to base its judgment it is impossible for the Congress to arrive at a considered and accurate appraisal of the results of the construction of these dams; and

Whereas the Army engineers have in this instance signally failed as a fact-finding body for the Congress: Therefore be it

Resolved, That all information in Senate Document 51 be held prejudiced, inaccurate, and incomplete, and that the Public Works Committee of the United States Senate disregard the document, and that a copy of this resolution be forwarded to said committee.

Mr. BRANDBORG. I would also like to insert a telegram from Mr. Robert Lanphear, president of the Montana Wildlife Federation, in which he expresses the opposition of his organization to the proposals for authorization of Bruces Eddy Dam.

Senator KERR. That will be done.

(The telegram is as follows:)

BOZEMAN, MONT., *July 17, 1956.*

STEWART BRANDBORG,
National Wildlife Federation,
Washington, D. C.:

Montana Wildlife Federation is greatly opposed to inclusion of Bruces Eddy Dam in H. R. 12080 on the Clearwater in Idaho. Please read this wire at your hearing and add same to your records.

President R. D. LANPHEAR.

Mr. BRANDBORG. It should be pointed out that, except for a handful of sportsmen's groups in the immediate vicinity of the proposed dams, both the local sportsmen's organizations in the vicinity of the dam sites and a preponderant majority of those from other sections of the State are on record as being opposed to Bruces Eddy.

Some misrepresentation of local feeling has resulted from efforts of the dam proponents who have tried persistently to give the impression that the few local groups which have supported these proposals are representative of the area and the State as a whole.

Except for the three local chapters of the statewide Idaho Outdoor Associations and the Grangeville Wildlife Club, there are only one or two other local sportsmen's groups in Idaho which to my knowledge have come out as endorsers of this proposal for Bruces Eddy Dam.

The Idaho Wildlife Federation is made up of 80 individual sportsmen's organizations throughout the State. Many of these sportsmen live within the Clearwater drainage and are intimately acquainted with the area that would be affected by Bruces Eddy Dam.

The great majority of sportsmen and conservation leaders, both locally and throughout the State, are opposed to untimely authorization of these dams without full assessment of their biological effects by competent wildlife agencies. These leaders are the people who know the Clearwater from their first-hand hunting, fishing, and outdoor living experiences. They represent the thousands that have gone there to take advantage of its unsurpassed recreational opportunities. They hold a rightful share in these irreplaceable resources and, therefore, should share in determining their future disposition.

Clarification should be offered on some of the misleading statements on fish and wildlife which have been made by proponents of the dams. Since proposals for these projects were first made public at Orofino, Idaho, on November 20, 1953, many self-styled wildlife authorities have stated that these projects would cause no harm or would even be beneficial to fish and wildlife. I am sure that members of this committee are aware of the very important scientific aspects of any biological study to determine the effects of large dams on fish and game animals and their environments.

Such studies cannot be undertaken by laymen who lack training and the technical skills to collect and accurately interpret biological data. This is a task for specialists offering backgrounds which combine training and field experience and not one for the lay observer who bases his opinions on casual observations made over a period of years.

Such specialists are found within State and Federal fish and wildlife agencies, and it is their observations and recommendations which have made it apparent to conservation leaders that Bruces Eddy Dam must not be built until thorough investigations have been completed to determine the long-range effects on fish, wildlife, and recreational resources.

Mr. Chairman, I would offer this comment on the recommendation made by Senator Dworshak. It has been the experience of the conservation groups that if a project such as the one proposed for the Bruces Eddy site is authorized, nothing will stop that dam from being built. If authorization for the project is granted, there is little possibility in my opinion that we shall be able to base further consideration as to whether this dam would be built on the information that will be provided to us by fish and wildlife agencies. This belief is shared by the people with whom I have associated myself within the Federal and State wildlife agencies and the conservation organizations.

There will be no ifs, ands, or buts about it; regardless of fish and wildlife considerations, there will be a dam once authorization is granted.

Senator DWORSHAK. Will you yield? Don't you realize that there have been many proposed projects authorized for periods of 2, 5, 10, 15 years, which are not actually constructed until all controversial aspects have been resolved, and that as the senior Senator of Idaho I have consistently said that I have no desire to force this project upon this State or the Northwest; that my primary and sole objective is to get the information which will be included in the reports which will be made by the fish and wildlife groups 2 years hence, and that in the meantime, instead of coasting along without having the engineering studies and designs available—and it will take 2 years for the Army Engineers Corps to complete that work—we cannot even propose construction for a period of at least 2 years?

I have said and I say again that at the end of that time I shall be glad to have the Congress make an appraisal on the basis of the factual information which has been made available to the Congress to determine whether the dam should be built or not be built; isn't that a fair approach?

Senator KERR. I would say to the distinguished Senator from Idaho that his statement is correct. I would like to give this reassurance

to the witness. The fact that a project is authorized for construction is certainly a step toward construction but it is not at all a conclusive step. For instance, this morning the committee took about an hour in hearing proposals by the Senators from Oklahoma for the modification of an authorization for Millwood Reservoir on Little River in southwest Arkansas and southeast Oklahoma, just above the confluence of the Little River with the Red River. That project was authorized 15 years ago.

I want to say for the record that in my judgment it will never be built as it was authorized. If the authorization is modified to meet the needs and the demands of the local people and of the States of Oklahoma and Arkansas then a much revised reservoir will probably be constructed. I am sure that the witness will have some reassurance about this particular question if he would have a study made of the present backlog of authorizations which have been in the status of authorized projects for periods of from 10 to 20 years that haven't been built.

I would like to ask the Chief of Engineers at this point if it isn't entirely possible that many of them will never be built?

General ITSCHNER. Yes, sir; we have had authorized to date $16,400 million of projects, for which only $6,900 million has been appropriated, leaving $9,500 million still to be appropriated to complete those projects. Obviously, many of those projects will never be built.

Senator KERR. I understood the distinguished Acting Chief of Engineers to tell us the other day that economic conditions which fully warrant the authorization at the time the action is taken may change or other considerations enter into the picture which result either in the authorization just laying dormant or I think you will find figures in the record—and I would like to have this checked, if I am in error—where Congress has actually deauthorized projects previously authorized?

General ITSCHNER. Yes, sir; there have been projects which have been deauthorized by specific legislation.

Senator KERR. I thought maybe in support of the statement made by the Senator from Idaho, and as a matter of information for the record that I would make that statement.

Senator NEUBERGER. May I make a brief statement on this for the record?

Senator KERR. Certainly.

Senator NEUBERGER. I think it is of some significance, though, that the Senators from Idaho are taking a somewhat different position with respect to the Hells Canyon project. There they are very adamantly opposing authorization, and not leaving it up to the Congress to undertake a reappraisal after authorization has been completed.

Senator KERR. I would say that that is a matter, while I don't agree with it on the Senators from Idaho, I must say is a matter within their prerogative to take that position.

Senator NEUBERGER. Quite within their prerogative.

Senator KERR. Their taking that position on Hells Canyon in no way changes the basic fact that the authorization of this project will not of itself insure its construction.

Senator NEUBERGER. That is true. Nor would that of Hells Canyon——

Senator KERR. That is very true.

Senator NEUBERGER (continuing). Assure its construction.

Mr. BRANDBORG. I am very appreciative of the advice and information which you have provided. I recognize that there are a number of dams which have not gained appropriations after having been authorized. However, the conservationists over the country have had the sad experience of coming time and again to make a plea for wildlife, fish and recreational values after authorization has been granted only to be told "you should have come back earlier, you should have been here before at the time the Congress was considering the authorization of this project."

We feel that there is too much at stake in the way of wildlife, recreational, wilderness values in this particular area to risk having to come back for a deauthorization bill. We don't want to be put in that position and we don't think that authorization is justified at this time in the absence of comprehensive biological data which should be supplied to us by the fish and wildlife agencies of the States in the Northwest and the United States Fish and Wildlife Service.

Very few of the recommendations of wildlife agencies are contained in Senate Document 51 in which the Corps of Engineers has reported to the Congress on the Bruces Eddy project. I would like to talk further about Senate Document 51. In the resolution of the Idaho Wildlife Federation it has been pointed out that wildlife values are not adequately represented, rather they are misrepresented.

The Corps has chosen to limit observations as to the effects of this dam on wildlife to a few local sportsmen organizations. It has included only a small part of the recommendations of the Federal and State wildlife agencies which provided preliminary information from incomplete studies. It seems improbable that Congress will risk destruction of these resources by authorizing Bruces Eddy in the absence of more complete information from the field investigations which are now underway.

It should also be made clear that until the time of the public hearings in Orofino the State and Federal wildlife agencies did not have specifications on the Bruces Eddy and Penny Cliffs projects as proposed by the Corps of Engineers. Obviously, in the absence of detailed information on the location of these dams and their sizes, it was impossible to make comprehensive evaluations of their effects on wildlife and recreational resources for the hearing. The greater part of this information, submitted later by these agencies for inclusion in the record, was not made a part of Senate Document 51. Thus the Congress has been denied the benefit of accurate appraisals of fish and wildlife values as they will be affected by the dams.

Senator KERR. I will say to you at that point that the chairman of this committee has complete confidence in both the efficiency and the candor and integrity of the Corps of Engineers about anything they will tell the committee.

Mr. BRANDBORG. I think that confidence is shared by many of us, Senator. But in this unfortunate situation it was evident that adequate representation of wildlife values was not included in the document submitted to the Congress.

Senator KERR. I would hope that the opportunity given to you would make up any deficiency in that regard. I would make the

observation that the presentation of facts would serve the purpose that I am sure you have in mind fully as well as adding to whatever presentation of facts you care to make, statements which might be interpreted as casting reflection upon agencies whose dealings with this committee have caused us to have complete confidence in their purpose and operation.

Mr. BRANDBORG. Mr. Chairman, as I said, I think many of us share your feeling of confidence in most of our Federal agencies and the Corps of Engineers. In many cases that I know of, the wildlife agencies, the sportsmen, and the other people who enjoy the outdoors, have had wonderful relationship with the Corps of Engineers. In this particular instance, I must allow these observations to stand because the shortcomings of the corps' approach have been pointed out most forcefully to me by the people whom I represent.

Senator KERR. I want to say to you, as I said to the mayor from Idaho awhile ago, when you are before this committee you have the privilege of free and uncensored expression and discussion. So also does the Senator from Oregon in his observations, and so also does the chairman of the committee in his.

Mr. BRANDBORG. Thank you very much.

I should like also to review the position that has been taken by the National Wildlife Federation and the other State, regional, and national conservation organizations which have opposed this project. This opposition is based on biological information obtained from technical studies of the United States Fish and Wildlife Service and the State wildlife agencies of Idaho, Oregon, and Washingon.

The Clearwater River, draining an area of over 9,600 square miles, contains an unequaled expanse of wilderness country which provides habitat for thousands of elk, mule, and white-tailed deer, hundreds of mountain goats and remnant bands of bighorn sheep, large populations of upland game and songbirds, black bear, coyote, cougar, marten, and many other animals of the northern Rocky Mountains.

Senator KERR. May I ask the witness a question at that point?

How much time has the witness spent in this area?

Mr. BRANDBORG. I was born at Lewiston, within the Clearwater drainage. I lived for 10 years in Grangeville.

Senator KERR. What years were those?

Mr. BRANDBORG. From 1925 to 1935. I had frequent occasion to visit the headwaters of the Clearwater from the period of 1935 to 1940. I made frequent recreational trips into these areas with my family.

Senator KERR. In those years?

Mr. BRANDBORG. In those years.

In 1948 I returned to Moscow, Idaho, as a resident, where I worked with the Idaho Cooperative Wildlife Research Unit on studies of the Rocky Mountain goat which took me into the Clearwater drainage. Upon completion of my work for the Idaho Cooperative Wildlife Research Unit in 1950, I was employed by the Idaho Fish and Game Department as biologist for that portion of the State of Idaho north of the Salmon River.

Later I became the area big game biologist. Since the Clearwater supports what is believed by many to be the largest elk herd in the world, I spent a considerable part of my time while serving in this

position on the ranges that we are considering here today, those critical wintering areas that would be affected by the dams at Bruces Eddy and Penny Cliff.

Senator DWORSHAK. With that extensive knowledge of the Clearwater drainage area would you be opposed to the construction of any dam on any of the branches or tributaries of the Clearwater River?

Mr. BRANDBORG. Senator, my experience teaches me one thing: that as a person who has had biological training I cannot look at an area and say what the effects on wildlife, fish, recreational, and wilderness resources will be. I would like to see the proposals, know what areas would be affected, have the specifications of these dams that are involved and then make my evaluation after the appropriate fish and wildlife agencies have been given the opportunity to carry out their investigations.

Senator DWORSHAK. Are you interested in the human elements of conservation as well as fish and wildlife aspects?

Mr. BRANDBORG. I am most interested in the human aspects of this problem. I realize that in down-river areas—Portland particularly—we have a flood menace. I look, along with many other people within conservation organizations and sportsmen's groups, at alternative sites on the Snake River above the mouth of the Salmon River. It is our belief that these alternate projects would give us the flood-control benefits that we must have in this area.

Senator DWORSHAK. But you know that floodwaters don't originate on the Snake. They originate on the Salmon and Clearwater. How can you build storage on the Snake to control floodwaters on the other two rivers?

Mr. BRANDBORG. I am not a hydrologist. I am not an engineer. But I do recognize that many arguments have been made which point up the fact that there is considerable flow from the Snake River as well as the Clearwater and the Salmon, and that the Snake River flow is a tremendous menace, and that this flow must be controlled.

Senator NEUBERGER. Is it not true that floodwaters—wouldn't it be fair to say that floodwaters originate on all three of these great rivers in Idaho—Salmon, Snake, and Clearwater?

The fact is, I believe, that floodwaters originate on these 3 great rivers at different times, depending upon the snow pack, the climate, the suddenness with which the hot weather comes in the high mountains and uplands at the sources of these 3 different rivers, and that all 3 are in different times varying flood menaces?

Senator DWORSHAK. With one great distinction. We have 15 or 18 storage reservoirs on the Snake River, while there is not a single reservoir to store water on either the Salmon or the Clearwater, with the exception of a small potlash dam right in the city of Lewiston. I think I would make that exception.

Senator NEUBERGER. There still is no control of the Snake River in its area of greatest flow.

Senator DWORSHAK. Many times more so than there is any control of the other tributaries, because the other tributaries have no storage reservoirs.

Mr. BRANDBORG. Senator, I would like to add a comment if I might. To my knowledge—and I am basing this observation on the maximum flow records on the Clearwater—there have been, since the beginning

of the century, only two major floods on the Clearwater. I believe that the proponents of the Bruces Eddy Dam in some instances have given the impression that the Clearwater River floods every year. I know, and I know you know, that this is not the case.

As Senator Neuberger pointed out, a lot depends on our spring weather when the snow pack is heavy and when we sometimes reach a critical stage with our flood menace. If we get a lot of hot, dry days, one following the other for a couple of weeks on end, we can expect high water in the Clearwater country. But the fact stands that the only years that the Clearwater has flooded, since records have been maintained, were 1933 when there were 162,000 cubic feet per second recorded at the Spalding station on the lower Clearwater, and 1948 when there were 172,000 feet recorded at that station.

Interestingly enough, the 1933 record shows that the flood occurred in December, just 2 days before Christmas. In 1948 the flood occured in May at a more typical season.

I think that generally speaking, all of us are concerned about the threat to people in the down-river areas, and I don't believe that the conservationists would for a minute want to minimize the importance of the needed flood-control projects on the middle Snake River. We feel that there are more desirable sites on other tributaries of the Middle Snake than Bruces Eddy and Penny Cliffs on the Clearwater.

The Clearwater elk herd of more than 25,000 animals is one of the largest, if not the largest, in the United States. In excess of 4,000 elk, as well as hundreds of deer, are harvested here each fall. Four thousand seven hundred elk were taken by some 17,000 hunters in 1954, a number that represents approximately 10 percent of the total harvest of this big game animal in the United States. Each year hunters spend more than $3 million on their visits into Clearwater ranges from which they take meat that is valued at more than three-quarters of a million dollars. Outfitters and guides, who serve these visitors, do more than $200,000 worth of business annually.

Winter food shortages limit the increases of elk and deer in the Clearwater country. These would be made more critical as a result of the flooding of thousands of acres of low valley ranges by either the Bruces Eddy or Penny Cliffs Reservoirs. It is on these low areas that big game concentrates when winter snows cover the high mountain ranges. The loss of the low wintering areas, coupled with the obstruction of elk migration routes, would result in excessive die-offs from starvation during hard winters. Estimates by the Idaho Department of Fish and Game and the United States Forest Service show that several thousand elk and deer use ranges that would be inundated by the waters of these impoundments.

Starvation is not new to the big game herds of the Clearwater. Hard winters have caused losses of thousands of animals from critical food shortages. In the winter of 1948–49 heavy snows took a toll of between two and three thousand elk and hundreds of mule and white-tailed deer.

Mr. Chairman, I have with me a small selection of photographs which are mounted in this binder. If I might, I would like to submit those to the committee members for their inspection. There are only a few pages, showing the conditions under which elk and big game winter during these adverse winters such as we had in 1948.

Senator HRUSKA (presiding). They will be used for that purpose and in due time returned to you.

Senator DWORSHAK. Bruces Eddy had nothing to do with that in 1948 and 1949?

Mr. BRANDBORG. That statement requires no comment.

Senator DWORSHAK. All right.

Mr. BRANDBORG. Bruces Eddy Dam would flood 49 miles of the canyon along the North Fork of the Clearwater, approximately 5 miles of the Little North Fork and many miles of lower tributary canyons to leave even less food to carry these big game animals through the critical periods. No method is known for replacing the natural forage provided by these valley ranges that are so vital to the winter survival of the herds.

The dam at Bruces Eddy would be 570 feet high. It would form an almost complete obstruction to steelhead trout and chinook salmon that migrate from the ocean into spawning waters of the Clearwater.

Mr. Chairman, may I have permission to use this map very briefly to point out a few pertinent details that I think will be of value to the committee?

Senator HRUSKA. Yes; that would be permissible. I am wondering, however—it would be the furtherest from my thought to abbreviate these hearings to the detriment of any viewpoint that would be expressed. However, if that is to be done at the expense of foreclosing other people who have come from far parts of this country from testifying at all, we have a choice there, and I wish you would bear that in mind as you proceed.

Mr. BRANDBORG. I surely will if I could take just a moment. I will endeavor to keep within that time limitation.

Senator HRUSKA. You may do that.

Mr. BRANDBORG. It was pointed out by Mr. Curtis that the Forest Service estimates indicated that the major concentration of elk on the North Fork of the Clearwater is found above the Bruces Eddy pool area. This is noted on the map he presented. I take gross exception to this map and the information provided on the distribution of game on the North Fork. I think that this Forest Service memorandum, which results from a joint meeting between the Forest Service and Idaho Department of Fish and Game officials from this area, will show you that some 40 percent of the elk population according to the best estimates that were available when this memorandum was written, September 15, 1954, range below the area marked on this map and in the area adjacent and contiguous to the Bruces Eddy pool area.

That is, there are elk down in these lower areas below the national forest boundary. The Forest Service, as I understand it, had not conducted extensive field surveys of the elk below the national forest boundary on private and State lands. Since that time the State fish and game agencies have been carrying out field investigations in this area and they will have better information to provide us at a later date.

As I pointed out, the dam at Bruces Eddy would be 570 feet high.

There are no practical methods for getting migrant fish over a dam of this height and the natural habitats of the native trout in these swift-flowing streams would be seriously affected.

The North Fork of the Clearwater is occupied by large populations of steelhead trout. By making spawning waters inaccessible, the pres-

ent and potential fish production of the entire Clearwater drainage would be seriously impaired.

I would like to stop at this time to make the point that the steelhead is of tremendous commercial importance, and that it has great value, and that the statement which was made earlier in the hearings by Mr. Curtis is not consistent with the facts which I have gleaned from the fish and wildlife agencies. The steelhead is of great importance to the commercial, and of course the sport fisheries of the Clearwater and downstream areas.

Studies of the Clearwater have shown that its potential for production of both steelhead and salmon is tremendous and that a steady increase has been recorded in the number of migrant steelhead entering its waters since the construction of adequate fish passageways over the low dam at Lewiston. Counts of migrant fish at these ladders have shown an increase from 3,693 in 1950 to 13,971 in 1955. Chinook salmon runs, which were destroyed before the installation of fish ladders at the low Lewiston Dam, have also shown some indications that they may be reestablished.

At present, more than 60 percent of the Columbia tributaries are blocked to migrate steelhead and Chinook salmon. New dams on the main Columbia and Snake Rivers, including the Ice Harbor and John Day projects, will serve as further obstructions to these migrants on their trips between the ocean and spawning beds. If we start now to block off the headwater spawning streams of the Clearwater River by building the impassable Bruces Eddy Dam, we will have cut off one of the last remaining areas where clear-running mountain streams provide breeding waters of the type required by these highly valued sea-run fish. Another death blow will have been dealt the dwindling commercial fisheries of the Columbia River system, which even yet, after years of depletion, are producing more than $17 million worth of harvestable steelhead and Chinook annually.

In addition to its great contribution to commercial take, the Clearwater provides unequaled sport fishing for both resident trout species and steelhead. In 1954 over 132,700 fishing trips were made along its waters, with fishermen taking some 547,000 trout and 8,200 steelheads. Last year 5,200 angler days were spent by fishermen who visited the North Fork to take over 42,000 trout. Of these, 60 percent were spawned by steelhead which would be completely eliminated by the Bruces Eddy Dam. A comparable loss to fisheries would result from the Penny Cliffs project.

In addition to obstructing natural fish movement and flooding out big-game winter ranges, the Bruces Eddy Dam with its extreme fluctuations in water levels would permanently disfigure one of the most outstanding mountainous wild areas in the United States. What would the artificial reservoirs created by this dam offer in the way of compensation for this loss of scenic grandeur, big-game ranges, and some of the best fish-producing streams of the country? Scarred and denuded canyons, steep-walled and silt-covered slopes that would be exposed by fluctuating pool levels. The natural beauty of these precipitous mountain valleys would be destroyed along with the dense growths of evergreens and shrubs which are staple winter foods of big game. The area would not longer be known as an attraction to the thousands of recreational users who visit it in numbers that increase with each passing year.

The Idaho Department of Fish and Game, the United States Fish and Wildlife Service, the Idaho Cooperative Wildlife Research Unit, and the Oregon State Game and Fish Commissions have indicated that the Bruces Eddy and Penny Cliffs Dams may have devastating effects on wildlife and recreational resources. They have urged that biological studies, now in progress, be completed before any projects are authorized on the Clearwater River. Such studies would serve to demonstrate the effects of these dams on fish and game and the millions of dollars of income that accrue from recreational uses of this wilderness. Once destroyed, these values cannot be replaced, and approval of plans to build Bruces Eddy, or any one of the several other dams proposed for construction on the Clearwater River, threaten to preclude completion of a comprehensive and fully integrated program of water development for the middle Snake River Basin.

Conservationists point to sites along the Snake River, above its confluence with the Salmon River, as practicable alternatives to the Clearwater projects. Comprehensive planning by an impartial group, which will place emphasis on the consideration of all resource values of the middle Snake River, should replace that of the Corps of Engineers, other Federal agencies, and private power interests which seek to overlook and minimize—through misrepresentation—the benefits from wildlife and recreation. We cannot anticipate satisfaction from river developments that are the outgrowth of continued conflicts between dam-building agencies that have battled relentlessly for control of these waters. Such an approach will ultimately result in misuse and waste of the resources of this rich area. As conservationists, we are determined to oppose desecration of wildlife, wilderness, and other recreational resources on this altar.

This is not the first time that an attempt has been made to gain support of Congress for the dams on the Clearwater. A bill, H. R. 8981, was introduced by Representative Homer Angell to authorize, at a cost of more than $309 million, both Bruces Eddy and Penny Cliffs Dams. This legislation followed less than 6 months the Corps of Engineers' first public disclosure of proposals for these developments at the hearing in Orofino. Because of widespread opposition by local, State, and National groups, this bill languished in the House Public Works Committee. Similarly, a surprise move in July 1955 to appropriate moneys for detailed engineering studies on Bruces Eddy, which would have constituted the initial phases of construction, was dropped from the public works appropriation bill in conference committee after having been added by Senate amendment.

During the present Congress the National Wildlife Federation and other conservation organizations appeared before both the Senate and House Appropriations Committees to register their opposition to the Federal budget request for moneys to start construction at Bruces Eddy. This was proposed in the absence of authorization for the project. The Subcommittee on Flood Control Projects of the House Public Works Committee, after having indicated that it would hear testimony on proposals contained in Senate Document 51 for Bruces Eddy and Penny Cliffs, did not undertake the consideration of these projects for possible inclusion in the omnibus bill, H. R. 12080.

It should be noted that opposition has not been limited to the Corps of Engineers: proposals for these dams. Over 400 protests were received by the Federal Power Commission when it considered the issuance of a preliminary permit to the Pacific Northwest Power Co. for the Bruces Eddy and Penny Cliffs projects.

Sportsmen and conservationists are agreed that these high dams, whether sponsored by private or public interests, should not be built at the expense of the Clearwater's fish, wildlife, and wilderness resources.

In conclusion, I wish to emphasize that any action to grant authorization for the construction of Bruces Eddy Dam would be untimely in view of the incomplete status of current investigations on the effects of this project on fish, wildlife, and recreational resources. It is our belief that it is unnecessary to sacrifice these irreplaceable values in order to obtain the benefits of river development. Thorough investigation and careful planning can show us how to save and develop all of these things.

Thank you for the privilege of appearing here today.

Senator HRUSKA. Thank you very much.

(A memorandum to forest supervisors signed by Floyd Iverson, assistant regional forester, United States Forest Service, Missoula, Mont., follows:)

MISSOULA, MONT., *September 15, 1954.*

MEMORANDUM TO FOREST SUPERVISORS

BITTERROOT, CLEARWATER, LOLO, NEZPERCE, AND ST. JOE

Forest, district, regional, and Washington offices may be requested to furnish information concerning elk and deer population estimates within the North Fork and Middle Fork drainages of the Clearwater River. This is in relation to the proposed Bruces Eddy and Penny Cliffs Dams.

In order that a full understanding of these estimates may be had, the following brief explanation of elk and deer population estimates is provided for your use: Overall elk and deer population estimates have been agreed upon with Mr. Harry Palmer, supervisor, district No. 2, Idaho State Fish and Game Department. The total estimate is 28,500 elk and 10,800 deer for the North Fork and Middle Fork drainages. Forest and district estimates agree with the general total estimate. The total elk estimate was agreed upon through kill figures obtained from hunter checking stations in 1953. The kill of 4,500 elk during the dry hunting season of 1953 in the rough, remote Clearwater drainage means that there are a lot of elk within this drainage, and that Forest Service estimates were decidedly conservative. Therefore, our estimates have been increased, especially in the Middle Fork drainage of the Clearwater. In addition, an excellent calf crop is reported within the entire drainage.

In our memorandum of August 12, elk and deer population estimates as related to the proposed Bruces Eddy Dam on the North Fork of the Clearwater and the proposed Penny Cliffs Dam on the Middle Fork of the Clearwater were presented as follows:

North Fork drainage	
Elk:	
Below forest boundary	4,300
Above forest boundary	6,500
Total	10,800
Deer:	
Below forest boundary	5,600
Above forest boundary	1,900
Total	7,500

Selway-Lochsa (Middle Fork) above Kooskia	
Elk:	
Above high-pool area	7,000
Below high-pool area	10,700
Total	17,700
Deer:	
Above high-pool area	1,500
Below high-pool area	1,500
Total	3,000

The above estimates should be used in all information relases. Explanation of the four area estimates of the North Fork and Middle Fork drainages is as follows:

Elk and deer estimates of the North Fork outside and below the forest boundary are made entirely by the State of Idaho. Only 2,400 acres of national-forest land is involved in the flowage area of the proposed Bruces Eddy dam on the North Fork. Elk and deer estimates above forest boundaries on the North Fork agreed exactly with State estimates, and no revision of Forest Service estimates was required.

Elk and deer estimates on the Middle Fork drainage below the high pool area include the entire country contiguous to and within side drainages of the high pool area of the proposed Penny Cliffs Dam. An estimate of 10,700 elk and 1,500 deer is made for the country adjacent to the proposed high pool area. Our district estimates do not add up to this total. However, elk and deer migrations in winter from adjacent upcountry districts make these estimates possible, since game movements downstream in winter do occur. Therefore, our estimate is 17,500 elk and 3,000 deer for the entire Middle Fork, with the real possibility of 10,700 elk and 1,500 deer using all the winter ranges adjacent to the flowage area of the proposed Penny Cliffs Dam.

The above estimates are not for the proposed flowage area itself, as explained above.

FLOYD IVERSON,
Assistant Regional Forester, United States Forest Service.

Senator HRUSKA. It is my understanding that Mr. Seaman, Mr. Gutermuth, Mr. Nadel, and Mr. Spencer Smith will file statements on the same subject.

Mr. BRANDBORG. Mr. Chairman, I should say that Mr. Gutermuth was not in the room at the time that the other people representing conservation organizations told me that this arrangement would be agreeable. Mr. Gutermuth is in the room now, I believe. I don't know what his feeling is on this matter.

Mr. GUTERMUTH. Mr. Chairman, my statement is very short. It merely substantiaties the position that was taken by the National Wildlife Federation.

Senator HRUSKA. Is it your desire to submit it?

Mr. GUTERMUTH. I will enter my statement.

Senator HRUSKA. That will be fine.

(The following statements were submitted for the record:)

STATEMENT BY E. A. SEAMAN, EXECUTIVE SECRETARY, SPORT FISHING INSTITUTE

Mr. Chairman, gentlemen of the committee, I am E. A. Seaman, executive secretary of the Sport Fishing Institute. The Sport Fishing Institute is a nonprofit, scientific, and educational fish-conservation agency, operated by professional fish conservationists like myself. Its membership is mainly industrial, and its sole task is to help improve sport fishing by aiding and encouraging the development of better fish-conservation knowledge and practices. I'm submitting a 1-page statement describing the purpose and program of the Sport Fishing Institute.

I am pleased to present my views to this committee in regard to omnibus bill H. R. 12080, particularly concerning the proposed Bruces Eddy Dam.

At the outset I cannot favor the construction of any dam which is of such height that a practical fish ladder or fishway cannot be installed for the purpose of permitting important runs of anadromous fishes to move upstream for natural spawning. I refer to the famous steelhead and chinook salmon of the Columbia River drainage.

These two species of fish are well known to sport and commercial fishermen and are important in the Clearwater River. These sea-run fish, especially the steelhead trout, consist of large populations in the river and this proposed dam would stop many miles of upstream spawning.

The fishway at Lewiston, Idaho, permits increasing thousands of these fish to migrate into the upstream waters of the Clearwater. A high dam at Bruces Eddy

would prove most disastrous to the maintenance or further development of these important resources.

I am confident that the members of this committee have no active desire to block this vital migration, and that you gentlemen already recognize that alternative lower dams could eliminate this critical aspect.

Testimony has been given earlier by others regarding the existing blocks to fish migration in the river system. In review, 60 percent of the Columbia River tributaries are blocked by existing dams to migrant steelhead and chinoook salmon. This proposed new dam would completely eliminate upstream spawning areas, in addition, and this may spell the death of an irreplaceable recreational resource.

Splendid steelhead and other trout fishing is enjoyed by sport fishermen in the Clearwater, in addition to commercial catches. In 1954, over 132,700 fishing trips were made, with 547,000 trout and 8,200 steelheads.

In California in 1953 anglers spent $23.26 to catch each steelhead taken, and $16.85 to catch each salmon taken. On the Lower Rogue River in Oregon anglers spend $1,300,000 fishing for salmon in a single year—$102 for every fish caught.

Last year 42,000 trout were taken by anglers on the North Fork of the Clearwater River. Of these, 60 percent were spawned by steelhead. This contribution will be stopped cold by the proposed dam. This will likewise be true at the Penny Cliffs project.

The harvest by commercial fishermen on the river system represents more than $17 million worth of business annually. The values of the sport-fishing catch may well reach several times this figure, according to the best estimates available.

In 1955, 13,971 steelhead trout passed over the fishway at the Lewiston Dam. This is an increase from 3,693 fish in 1950. These fish will be stopped at the proposed Bruces Eddy Dam. This would be tragic, gentlemen, and I am sure you would not sanction this type of high dam knowing of the great and increased importance to sport fishing in America. In this nuclear age we are and will continue to face more leisure time. Sport fishing has proven its role in the recreational happiness of our peoples. May we suggest alternative low dams be given serious consideration by this committee to replace the proposed Bruces Eddy Dam. We feel a compromise of a series of low dams combined with practical fish ladders not in excess of 50 feet in lift, is acceptable to us rather than a single high dam which would form an insurmountable barrier in the beautiful Clearwater River.

It is our understanding that investigations now being conducted by the United States Fish and Wildlife Service in regard to this proposed dam site are as yet incomplete. We are confident you gentlemen would recognize that there are good reasons for delay on this issue until at least the studies are complete and placed in your hands before making this vital decision for dam construction.

Thank you, Mr. Chairman and gentlemen of the committee for permitting me to present this statement. The Sport Fishing Institute is pleased to serve this body as best we can at any time.

[Reprinted from Sport Fishing Institute Bulletin for January 1956]

ABOUT THE SPORT FISHING INSTITUTE

The Sport Fishing Institute was organized in 1949 by a group of farsighted fishing-tackle manufacturers. The purpose was rather clearly stated by one of the founders when he said: "We've milked the cow long enough. Now it's time to feed her." The institute was organized in an effort to help fishing and fishermen. It was set up as a fish-conservation agency, not as an organization aimed at promoting the sale of tackle.

The founders realized, of course, that fishing intensity depends on the quality of fishing. If the catch is good, more anglers take to their favorite waters. If fishing is poor, many anglers turn to other less interesting forms of recreation. When more people go fishing, tackle sales increase. The tackle manufacturers did not create the institute out of sheer altruism. But by setting it up as a fish-conservation organization managed by trained fish conservationists, they removed any so-called taint of commercialism. The institute has complete freedom of action—an important asset.

Well over 100 fishing-tackle manufacturers now contribute funds to the institute. Their contributions are the major source of income. However, a growing number of other companies and individuals also contribute to the organization.

Our main objective is to help improve fishing. We believe that this can be accomplished best by progressive fish conservation. With the constant increase in pressure, good fishing can't be taken for granted any more—it must be created. Former fish-conservation methods—more or less indiscriminate stocking with small fish and the enforcement of arbitrarily made regulations—did not prevent a gradual decline in the catch. Modern fish-conservation methods improve fishing.

In older fields, such as medicine, our immense progress can be attributed mainly to factfinding, education, and rising professional standards. In fish conservation, our current progress can be attributed to these same factors. For this reason, the institute concentrates its attention on these same three items.

The institute gives a number of research grants and graduate fellowships to stimulate needed fishery research and to assist in the training of fishery students. Such funds have been given to Cornell University, Iowa State College, Long Beach State College, Maryland Department of Research and Education, University of Massachusetts, University of Michigan, University of Minnesota, Montana State College, Northeast Missouri State Teachers College, Oklahoma Game and Fish Department, Southern Illinois University, Tulane University, and Utah State College. Other financial grants have been made to the Boy Scouts of America, and to the Izaak Walton League of America.

The organization receives a growing number of inquiries about fish, fishing, and fish conservation; answering the mail has become a time-consuming job. We do not give advice on where to go fishing because this could lead to a feeling that we are prejudiced in favor of certain waters or certain areas.

There is close collaboration with numerous State and Federal fishery and education organizations, sportsmen's groups, private clubs, outdoor writers, and other groups.

Major emphasis at present is on fish-conservation education because this seems to be the biggest bottleneck to progress. In this connection, circulation of the bulletin has been increased to 13,000. This 8-page monthly publication goes chiefly to fish and game administrators and commissioners, professional fish and game workers, conservation officers, outdoor writers, radio and TV sportscasters, officials of sportsmen's organizations, United States Senators and Congressmen, and governors and lieutenant governors.

Feature and special interest items in the Bulletin are widely reprinted in State fish and game or conservation magazines, in sportsmen's newspapers and magazines, and in daily, weekly, and monthly consumer publications. In this way, the institute influences the thinking of millions of sportsmen. A number of feature articles were reprinted in over 40 known publications with a total circulation of several million copies. Because of the interest these were printed by the institute in two separate booklets, entitled "Fish Conservation Fundamentals" and "Land, Water, and Fishing." They are now available at approximate costs of printing and mailing.

The institute publishes an annual review of fish-conservation activities carried on by more than 65 States, Provinces, Federal agencies, and private organizations in North America. This review, about 80 pages, is the Fish Conservation Highlights. It is the only such summary available to lay conservation leaders and fishery workers alike

A 4-color 28-by-44-inch conservation chart with 15-page text devised as a new method of teaching conservation to children of 3d- to 8th-grade age was prepared and is available from the institute at approximate cost of printing and mailing. The chart shows the effects of proper use and of misuse of soil, water, and forest resources on economic and recreational opportunity. Endorsed by leading conservationists and educators, about 50,000 copies have been put in use.

The institute cooperates closely in the Boy Scouts conservation program. Special events fishing and fish-conservation activities are furnished. A new merit-badge book, Fishing, was prepared jointly. Funds are made available to help train Scout leaders in conservation principles. One result of this effort has been a recent fourfold increase in the number of merit badges issued in fishing.

This isn't a comprehensive report on the institute's activities. We want merely to point out that the organization is growing, that its sole interest is to help improve fishing (through better fish conservation), and that emphasis at present is on helping to provide more educational materials for both adults and children.

STATEMENT OF C. R. GUTERMUTH

Mr. Chairman, I am C. R. Gutermuth, vice president of the Wildlife Management Institute, a private national conservation organization devoted to the improved management of natural resources in the public interest.

We feel that the request before this committee for congressional authorization for the Corps of Engineers to get started on the Bruces Eddy Dam on the Clearwater River in Idaho is premature and most untimely. The institute is opposed to the consideration of a project of this magnitude in the closing hours of this Congress.

It is untimely, first, because the appropriate committees of the House and Senate have not held adequate hearings to determine the feasibility and advisability of constructing a dam at this site. Furthermore, we think that it is ill advised to attempt to include a project of this magnitude in an omnibus authorization bill.

There was an authorization bill in the 83d Congress for the Bruces Eddy Dam and it failed to receive consideration by the House Public Works Committee largely because of the widespread public opposition to its construction. In the first session of this Congress, an effort was made to secure an appropriation for this project prior to its being authorized by the Congress, and now there obviously is another attempt to keep this proposal from being considered on its merits.

At the present time, personnel of the United States Fish and Wildlife Service and the Idaho Department of Fish and Game are conducting a survey to determine the effect that the Bruces Eddy Dam and the resulting impoundment would have on the game, fish, and recreational resources of the Clearwater area. These studies were authorized by the Congress, and the conservationists have assumed that this appraisal is being made to obtain facts for use by Congress when it can give full and proper consideration to an authorization request for the construction of this dam.

Even though complete information is not yet available to appraise in detail the wildlife and recreational values of the Clearwater drainage, it is known that those values are substantial. This knowledge, in fact, prompted the Oregon State Game Commission and Oregon Fish Commission to prepare a joint report which appears on pages 10 to 17 of Senate Document No. 51, 84th Congress, 1st session, relating to the threat to these resources from the proposals made by the Army Corps of Engineers for the Middle Snake River, Snake River and tributaries, Wyoming, Idaho, Oregon, and Washington. The construction of a dam at the Bruces Eddy site, as well as the others that are proposed, the Oregon agencies agreed, would have a much more detrimental effect upon game, fish, and recreational resources of the Northwest than is indicated in the corps' optimistic report.

We have heard numerous complaints of the unfair way in which the facts were scrambled in that Senate Document No. 51, Mr. Chairman. Much of the pertinent information has not been included in that document by the corps. Anyone studying that report in an attempt to get the true facts of the case should take that matter into consideration, because Senate Document No. 51 does not contain all of the information that should be presented to the Congress for its consideration. The proposed dam would block the anadromous fish runs in that branch of the Clearwater and, in addition, would have a serious effect on the resident trout population. This stream is famous for steelhead trout and its obstruction with a dam of insurmountable height—even with a fishway—would eliminate it as a producer of sea-run fish.

Those fishways, Mr. Chairman, are effective only to the point of carrying adult fish over dams considerably less than 100 feet in height. The dam under consideration today would exceed this height by many hundreds of feet. Nor is there a known method of guiding the young fish downstream and out to sea without tremendous losses.

The Bruces Eddy impoundment would inundate 12,000 acres of prime winter browse plants and this loss of forage would create a serious wintering ground problem for many of the area's 20,000 to 25,000 elk, as well as the large number of deer. Loss of this winter food would place those big-game animals in jeopardy and the impoundment itself would create a physical barrier to their necessary seasonal movements.

We have not found a way to get those big-game animals to changes their ancestral movements, and when their migration routes are blocked, as would

be done in this case, it is inconceivable, from what we presently know of the habits and characteristics of big game, that the animals ever would find their way down into their former wintering grounds.

Some people urge supplementary feeding programs as the means of offsetting the loss of winter range. The institute published The Elk of North America, by Dr. Olaus J. Murie, who is one of the leading authorities on elk. That book contains the findings of a 25-year intensive study of the habits and requirements of elk. It brings out quite graphically that it is virtually impossible to sustain elk by artificial feeding.

Around 10,000 hunters bag nearly 4,000 big-game animals in the Clearwater drainage each year, and spend at least $3 million in so doing. The meat value alone, of those animals, is nearly $1 million annually, and approximately $200,000 worth of business is provided for the 40 or more commercial pack outfitters in the area. Those important economic factors must be given serious consideration.

The joint statement of the Oregon Game and Fish Commission in Senate Document No. 51 is an objective appraisal of the effect that the construction of this dam would have on the known natural resource values. It is based on their intimate knowledge of the game and fish and on the experiences that have been recorded following the erection of other dams in the Northwest. It is expected that the field studies of the United States Fish and Wildlife Service and the Idaho Department of Fish and Game will reveal the magnitude of natural-resource values that should be considered whenever any authorizations are sought for dams in the Clearwater drainage.

Mr. Chairman, it is hoped that no attempt will be made to take action on this authorization request at this time. Sincere and well-justified questions have been raised about the effect of this dam on the exceedingly valuable game, fish, and recreational resources of that part of Idaho. Let there be no mistake about it, the losses will be felt far beyond the boundaries of that one State.

Upward of 30 million Americans purchase hunting and fishing licenses each year. Many millions more who hunt and fish are not required to have State licenses due to specific exemptions. Each year, untold millions of persons turn to the out-of-doors for recreational enjoyment and relaxation. Surely, any river-basin planning that is in the national interest should consider the effects of such impoundments on game, fish, and recreational resources as well as on flood control, navigation, and power production.

It is our understanding that the plans for this particular dam contempalte the construction of a log-passing facility for the rapid and economical passing of logs over the dam, and the committee certainly should look into that. We cannot understand why the Federal Government should be obliged to provide such facilities for the convenience of a few logging operators, even though they will be required to cover the maintenance and operating costs.

Thanks for your courtesy.

STATEMENT IN BEHALF OF THE WILDERNESS SOCIETY BY MICHAEL NADEL, ASSISTANT EXECUTIVE SECRETARY

My name is Michael Nadel. I am assistant executive secretary of the Wilderness Society, a private, nonprofit, philanthropic, national conservation organization with headquarters in Washington, D. C. I appreciate this opportunity of presenting some comments on the planned Bruces Eddy and Penny Cliffs dams on the north and middle forks respectively of the Clearwater River in Idaho.

Even now, as these hearings are underway, extensive studies are being conducted by the United States Fish and Wildlife Service, and the Idaho Department of Fish and Game, of the fish and wildlife and recreational resources in the area which would be affected.

These studies, which I believe are only in the early stages as of now, are of serious importance at a time when distinguished biologists and conservation leaders are warning of the jeopardy of a dam at Bruces Eddy to our fishery resources, and to our resources of big game such as elk.

I have not myself visited in this erea. Mr. Howard Zahniser, the executive secretary of the Wilderness Society and editor of the Living Wilderness, has inspected the upper reaches of the Clearwater which would be affected by the planned Bruces Eddy and Penny Cliffs dams. Mr. Zahniser is concerned with the threat of these dams to our wildlife resources and to thousands of acres

of valuable forest land. He is deeply concerned with the threat that the Penny Cliffs dam would back waters clear into the Selway-Bitterroot primitive area for a distance of 6 miles, thus destroying the sanctity of wilderness, as well as major wildlife values.

The proposed dams would flood out the great winter range of the elk herd and block the migration routes.

The president and director of the Wilderness Society, Dr. Olaus, J. Murie (who is at present in Alaska studying wilderness areas of the Brooks Range and making a survey of the wildlife problems in Alaska), has studied the proposals for Bruces Eddy and Penny Cliffs dams. He expressed fear of the damage that these impoundments would cause the elk heard. As a distinguished scientist and biologist, and the author of The Elk of North America—a study reputed to be one of the foremost in the field, published by the Wildlife Management Institute—Dr. Murie stated at a hearing before the Board of Engineers for Rivers and Harbors, in Washington, D. C., that the Bruces Eddy impoundment would flood canyons in which is located and crucial winter range of the elk. On this winter range is produced the browse species which elk require in order to subsist. The total wintering range for elk is already so drastically reduced that any further obligation of that range can do violence to the existence of the herds.

With these clear warnings before us, it would evidently be questionable to proceed with authorization of the Bruces Eddy or Penny Cliffs dams before the results of the surveys by the Federal and State biologists have been submitted and studied.

It is being urged by the Army Corps of Engineers that authorization for Bruces Eddy and Penny Cliffs dams go ahead at once, without awaiting the outcome of the studies. The Lewiston (Idaho) Morning Tribune, in its issue of July 12, 1956, quotes Brig. Gen. Louis H. Foote as saying: "At least 2 years will be required before construction can start * * * after completion of studies currently being carried on by the Idaho Fish and Game Department."

This appears to read as though the studies are being discounted in advance, whatever the results. Is the urge for the dam by its proponents stronger than prudence? Is it stronger than the vital concern of all the people with resources for which there can be no substitute? The Fish and Wildlife Service is charged by Congress, among other programs, with determining the probable effect of river developments on wildlife, and it is charged with the responsibility of insuring the conservation of the Nation's wildlife (both for their recreational and economic values), and to prevent the destruction or depletion of these natural resources. Thus it would seem that we are bound to await the outcome of the studies that have been initiated before committing what may be a grievous blunder.

We come to these crossroads of purpose, where a long, searching appraisal must be made of the values by which we shall be governed. These values must determine what our decisions of today will leave for the future. We do not oppose dams as such, but there is a concern with where dams are put and what values they displace. We may yet see monumental dams, like gravestones, towering in obsolete emptiness, replaced in some instances by new avenues of power developed by science. It would be tragic indeed to see these monumental gravestones over the land, reminders of great and vital resources obliterated. No synthetic can follow the destruction of a wilderness, of fish and wildlife, of forest lands—all of which are essentials for a healthy social culture. In a healthy social culture lies the conservation of the human.

Indeed this is a time for the engineers, the social planners, the representative agencies, and the conservation leaders, to get together and plan these projects for the long perspective. In such planning there need be no genuine conflict.

To conclude these comments, Mr. Chairman, and gentlemen of this committee, we support our cooperating wildlife conservation groups in disapproving the planned Bruces Eddy and Pennycliffs Dams on the ground that they would destroy important wildlife resources and wilderness values.

I thank you for your courtesy in permitting me to offer these remarks.

STATEMENT OF DR. SPENCER M. SMITH, SECRETARY OF THE CITIZENS COMMITTEE ON NATURAL RESOURCES

Mr. Chairman, today, I appear before the committee in a dual role. The first of these is as the secretary of the Citizens Committee on Natural Resources, which is composed of some of the most distinguished and outstanding conservationists in the United States. It is a nonprofit, private, nonpartisan, membership organization devoted to the conservation and proper utilization of natural resources in the public interest. In addition, I have been asked to represent the National Parks Association, which is a well-established membership organization of more than 50 years. It has as members some of the most distinguished citizens in the United States. The National Parks Association, as I am sure most of the committee is aware, is devoted to protection, proper management, and enhancement of our national parks and our scenic and natural resources.

Both of these organizations which it is my great privilege to represent are unalterably opposed to authorization of a dam at Bruces Eddy on the Clearwater River in Idaho. May I hasten to add that in this opposition we are not attempting to oppose or obstruct the development of natural resources of the West, a development that we support as a necessary consequence of the better standard of living for the people of the United States in the future. The purpose of the conservationists, however, is to accomplish this development without destroying the wildlife, recreational, and scenic values, which when once seriously altered or destroyed can never be replaced. It is our hope that we are wise enough to realize that all of these aims are not perfectly compatible, but we feel most sincerely that cooperative efforts in the planning and consideration of development can obviate unnecessary destruction contingent to that development.

We take sharp issue with those who contend that there is no relationship between the construction of the high dam at Hells Canyon and the proposed dams for the Clearwater.

The proponents of the Clearwater dams have mystified us again and again with their arguments supporting this construction. Some contend that fish are of no importance, yet they want a considerable amount of money to study whether the construction of this dam on the Clearwater will be adverse to fish survival. It is understandable that this confusion can result when the same individual contends that the steelhead is not a commercial fish. This lack of knowledge is indicative of the same lack of knowledge as to what effects the construction would have upon the elk herds of the Clearwater drainage basin. Competent biologists are on record in direct opposition as to the adverse effect upon wildlife.

A number of questions have come to the mind of conservationists that we should like to place before the committee for their deliberation and consideration. We feel these to be logical inquiries to the case that the proponents of the Clearwater dams have made.

First, the proponents contend that they need desperately control of the Clearwater because of its flooding. They further contend that dams on other parts of other rivers cannot manage the Clearwater floods. Upon first inspection this appears to be a logical argument—until the proponents point out that these dams would prevent the serious and destructive floods of the Portland area or the other downstream areas so seriously affected by the Snake River. The contention of the proponents at this point is somewhat fuzzy. Are they contending that the dams are necessary on the Clearwater in order to control floods on the Snake? Or are they contending that the dams are necessary to control floods on the Clearwater? If the latter is their concern, then it is obvious that smaller, upstream dams may be able to accomplish this to a better degree than the proposed construction.

The proponents of the dam seem to imply that floods are a yearly concern of the people in the Clearwater drainage basin. The facts indicate, however, that such is not the case. Actually, there have been only 2 floods on the Clearwater in 60 years—1 in 1933 and 1 in 1948. The proponents have used the unique aspects of the 1948 floods as the strong argument for dams on the Clearwater to prevent the inundation of the downstream areas on the Snake River. In the year 1948, 1 year in 60, a unique distribution of the snow pack for that area was responsible for the part played by the Clearwater in that flood. The following is a table showing the snow-pack figures as a percentage of average readings for water content of the snow pack:

Snake Basin

Course	Apr. 1, 1948	Mar. 1, 1956	Course	Apr. 1, 1948	Mar. 1, 1956
Above Jackson Lake	89	158	Payette River	96	132
Jackson Lake to Heise	91	124	Malheur River	112	128
Heise to American Falls	97	124	Burnt River	117	132
Southern tributaries	96	120	Powder River	116	130
Big Lost River	87	131	Hells Canyon Dam site:		
Big Wood River	82	129	Salmon River	108	129
Boise River	89	135	Clearwater River	128	128
Owyhee River	100	120			

It is perfectly obvious that this 1 year in 60 is the primary basis of the contention by proponents of the dams on the Clearwater. Also, another misleading aspect of the Clearwater flood-control argument is the flash-flood type of flow that is inherent in the Clearwater hydrology. The Clearwater has peaked to a higher point than the Snake, with the maximum recorded flow at the mouth of the Clearwater a 172,000 cubic feet per second; but the Columbia Basin Interagency Committee, in a report of May 1951, clearly shows in their hydrograph of monthly runoff that, while the Clearwater River peaks to a higher point than does the Snake, it is not sustaining while the peak of the Snake is sustaining. This is due to the topography surrounding the Clearwater River drainage basin and the topography responsible for the discharge into the Snake above the confluence of the Clearwater and Snake Rivers.

If the objective is flood control for the Snake River, we should like to quote Gordon H. Fernald, Corps of Engineers, Chief, Planning and Water Control Branch, North Pacific Division, Portland, Oreg., when he testified before the House Interior and Insular Affairs Committee on March 31, 1952:

"The Hells Canyon project is considered to be an integral unit in the so-called main control plan and is essential to the provision of the necessary storage needed in the basin for the control of floods, the needs of navigation, the development of hydroelectric power, and full realization of the other benefits of water resource development."

The Corps of Engineers cited also, on page 474 of the same hearings, that the Hells Canyon site alone would take seven-tenths of a foot off the 1948 crest but more than a foot off the 1894 crest. It was intended to provide about one-eighth of the main control plan storage. The regulation of the Snake River by the use of High Hells Canyon can accomplish this without the subsidiary dams on the Clearwater River. It should be pointed out also that, at the time the Corps of Engineers was considering a dam at Kooskia, Gen. E. C. Itschner, of the Corps of Engineers, wrote in a letter to Paul Raver the following:

"Since Hells Canyon is located on Snake River and Kooskia is located on Clearwater River, Kooskia could not be considered as a full substitute for Hells Canyon."

Conservationists are saying that it appears to them that when the high dam at Hells Canyon was abandoned in favor of the three small dams, it was not done primarily for purposes of flood control on the Snake River. More credence is given to the primary reason, in our judgment, by the statement made by General Foote and reported in the Lewiston Tribune on December 3, 1955, when he said that if Bruces Eddy and Penny Cliffs Dams were authorized by Congress, "it will be a big step in solving the question of storage." The press went on to report:

"According to the division engineer the 308 report is being revised not only because of the loss of 2.8 million acre-feet of storage when three lower dams to be built by Idaho Power Co. were authorized instead of a high dam providing 3.8 million acre-feet of storage (IPC's Brownlee Dam, 1 of the 3 authorized, will provide 1 million acre-feet)."

The conservationists feel that it makes more sense to try to replace that storage given away with the authorization of the 3 small dams than it does to consruct dams on a river that has flooded 2 times in more than half a century. We also agree with General Itschner that there is no substitute to be found for the control of the river by controlling some other river.

It also seems abundantly clear that the area immediately contiguous to this particular dam site wants a power project which admittedly could not be built

by private enterprise to be built by the Government and operated by a private company in order to obtain tax revenue for their particular area. Wildlife groups throughout the State are certainly in the majority in their opposition to the project. Those few wildlife organizations which are supporting it are primarily those in the immediate area.

Conservationists are not impugning motives, but logic seems to lay bare one possible reading—that the revenue interests may be by far paramount in the desire for this structure over achieving flood-control purposes.

Mr. Chairman, may I say in conclusion that the conservationists are well aware that, with a general increase in population in the United States and the concomitant demands for greater hydroelectric power, for greater utilization of water resources and also for greater recreational and scenic resources, some plan and procedure must be worked out to achieve the maximum utilization, and we insist that the term "maximum utilization" be inclusive of protecting natural areas and resources therein.

We hope that the committee in their deliberation considers carefully the rationale of why the high Hells Canyon project and the Bruces Eddy project are inseparably related.

Senator HRUSKA. Are there any witnesses in the room, other than those repreesnting the Corps of Engineers, who have anything for any of the projects we have heard today?

If not, we will stand adjourned until 10 o'clock in the morning. At that time, General Itschner, unless there are remaining witnesses on this list, we will get to witnesses from your corps for the purpose of supplementing testimony already given.

(Whereupon, at 4:48 p. m., the subcommittee was adjourned, to reconvene at 10 a. m. Wednesday, July 18, 1956.)

RIVERS AND HARBORS—FLOOD CONTROL

WEDNESDAY, JULY 18, 1956

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON FLOOD CONTROL—RIVERS AND HARBORS,
Washington, D. C.

The subcommittee met, pursuant to notice, at 10:15 a. m. in room 412, Senate Office Building, Hon. Robert S. Kerr (chairman of the subcommittee) presiding.

Present: Senators Kerr, Hruska, Bender, and Long.

Senator KERR. Congressman Minshall, please. I understand that you want to talk to us about Cleveland, Lakewood, Rocky River, and Bay Village, Ohio.

STATEMENT OF HON. WILLIAM E. MINSHALL, CONGRESSMAN FROM THE 23D DISTRICT, STATE OF OHIO

Mr. MINSHALL. Mr. Chairman, it is a pleasure to appear before the Senate Committee on Public Works in support of S. 1817, a bill introduced by my good friend and predecessor in the House of Representatives, the junior Senator from Ohio.

Senator Bender's bill would authorize the appropriation of funds for the construction of a breakwater for the protection of the Cleveland, Lakewood, Rocky River, and Bay Village, Ohio, shore of Lake Erie, the total of which is within the 23d Congressional District I am privileged to represent in the Congress.

This bill is identical to H. R. 4524, a bill which I introduced in the House of Representatives last year on March 1, 1955.

Both of these bills were introduced to obtain Federal assistance for the protection of the shores of Lake Erie on a line that extends from Cleveland across Lakewood, Rocky River, and Bay Village to the Cuyahoga-Lorain County line.

This committee is far more familiar than I with the total destructive force of beach erosion along the thousands of miles of shoreline in the United States, and I can assure the committee that in this particular area of which I speak, the damage to the beach from erosion is as bad as any the committee has ever seen.

The cost of preventing this needless destruction is more than the individual property owners can bear. Their property costs are the highest in the area and the tax value of their property is likewise the highest. And unless there is outside assistance to help these property owners, the land will likely become a public waste with the resultant loss of tax revenue to the local governments.

Immediately upon my introduction of H. R. 4524, I am proud to say, I received hundreds of encouraging letters from the residents of these communities, but more important, the mayors and council members of these municipalities began holding meetings to prepare for their participation in the project.

My files are thick with documents and letters justifying this proposal, and I will be glad to answer at this time any questions the committee may ask.

Mr. Chairman, again I wish to thank you for this opportunity to appear before the committee. I hope the committee will act favorably on this important measure.

(S. 1817 is as follows:)

[S. 1817, 84th Cong., 1st sess.]

A BILL To authorize the appropriation of funds for the construction of a breakwater for the protection of the Cleveland, Lakewood, Rocky River, and Bay Village, Ohio, shore of Lake Erie

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Department of the Army, acting through the Chief of Engineers, is hereby authorized and directed to construct a breakwater for the protection of the Cleveland, Lakewood, Rocky River, and Bay Village, Ohio, shore of Lake Erie.

SEC. 2. There is hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

Senator KERR. Thank you, Congressman. Do you have any supporting data you want to put in the record?

Mr. MINSHALL. I would like to submit some pictures of the area that were not readily available this morning. They are being reproduced. May I submit them to the committee in the next day or two?

Senator KERR. It would be very good if you could get them in the next 2 days.

Mr. MINSHALL. I shall make every effort to do so.

Senator KERR. Are there any other witnesses here for this project?

Senator KERR. Senator Bender, we called for you this morning to give testimony on the proposed Lakewood, Rocky River, and Bay Village, Ohio, matter.

STATEMENT OF HON. GEORGE H. BENDER, A UNITED STATES SENATOR FROM THE STATE OF OHIO

Senator BENDER. Ohio really needs this relief. Lake Erie is part of the Great Lakes-St. Lawrence seaway operation for which we appropriated vast sums of money. Beach erosion set in so that we are without facilities unless we have the breakwater. Actually homes are being dumped into Lake Erie, and the beaches—we have no beaches there on this great body of water. The breakwater, I have discussed this matter with the Army engineers over a period of time, and the breakwater is the only way that we can get the kind of relief for that vast industrial area that we need.

Senator KERR. May I at this point ask the Chief of Engineers: Is this a similar project to the one which has been discussed with reference to Detroit?

Mr. BRENNAN. Not quite. This is a beach-erosion project, whereas the three projects I discussed on Detroit Beach, Point Place, and

Lakewood-Luna Pier, are projects for the protection of inland areas from actual flooding from the Great Lakes.

Senator KERR. Then the objection that the Bureau of the Budget lodged with reference to the Detroit projects would not be applicable to this project?

Mr. BRENNAN. That is correct.

Senator KERR. Proceed, Senator.

Senator BENDER. That is about all that I have. I don't want to take your time. This is a project that anyone who is informed—certainly the Army engineers—can appreciate as to the merits of this. All the cities in that territory are affected. This relief is necessary. Why consume your time with a lot of unnecessary argument?

The Army engineers I am sure can give you a bill of particulars as to why we are asking for this.

Senator KERR. We will give them that opportunity.

Thank you, Senator Bender.

Senator BENDER. Thank you very much. I appreciate it.

Senator HRUSKA. This project is Cleveland, Lakewood, Rocky River, Bay Village, Ohio.

General ITSCHNER. General Weaver.

STATEMENT OF GEN. T. D. WEAVER, PRESIDENT OF BEACH EROSION BOARD

General WEAVER. I am Gen. T. D. Weaver, President of the Beach Erosion Board. I believe I can save the time if I read this statement.

Senator HRUSKA. Very well.

General WEAVER. Senate bill 1817 would authorize the appropriation of funds for the construction of a breakwater for the protection of the Cleveland, Lakewood, Rocky River, and Bay Village, Ohio, shore of Lake Erie. The area specifically referred to in the bill is understood to extend from the easterly edge of Edgewater Park, where it borders on the Cleveland Harbor area, to Bay Village, some 10 miles to westward.

This stretch of shoreline was covered in two different cooperative studies for beach-erosion control. The first study, Cleveland and Lakewood, Ohio, Beach Erosion Control Study, made in cooperation with the city of Cleveland was completed in 1948 and was published in House Document 502, 81st Congress, 2d session. It included detailed studies of this shoreline as far westward as Rocky River Beach which is about 4 miles east of Bay Village. As a result of this study Federal projects at Edgewater Park (immediately to west of Cleveland Harbor) and at White City Park (about 8 miles east of Cleveland Harbor) were recommended. These projects were authorized in the River and Harbor Act of September 3, 1954, at a combined total estimated first cost of $4,031,700 and Federal share of first cost of $1,343,900. No Federal funds have as yet been appropriated for these projects. The second study, Ohio Shoreline of Lake Erie, Sheffield Lake Village to Rocky River, Beach Erosion Control Study made in cooperation with the State of Ohio was completed in 1952 and was published in House Document 127, 83d Congress, 1st session. It covered the shoreline for 15 miles westward of Rocky River. Bay

Village which is just west of Rocky River is included in this study. Bay Village is at the western end of the area affected by the bill we are talking about today.

No Federal projects were recommended in the latter study. Both of these studies outlined in considerable detail the most effective and economical means for protection of the many segments of the shoreline by such measure as revetments, groins, bulkheads, and placement of sand gills.

Subsequently local interests have advocated general protection of the entire stretch of the shore by means of a breakwater located several hundred feet lakeward of the waterline and apparently for useful purposes other than shore protection alone. The construction of such a breakwater was not considered in either of the reports referred to.

The Secretary of the Army in a letter of August 5, 1955, to the chairman of the Senate Committee on Public Works responding to the chairman's request for the views of the Department of the Army with respect to S. 1817, stated that the Department is opposed to the bill. He noted that the completed reports recommended types of shore protection which are more economical than an offshore breakwater. He commented also that with the exception of the two publicly owned areas authorized for protection in the River anod Harbor Act of 1954, Federal participation in the cost of shore protection was not recommended in these reports for the reason that the shoreline is, for the most part, privately owned frontage and as such is not eligible for Federal participation in the cost of protective measures under existing beach-erosion law.

The Department of the Army does not have an estimate as to the cost of the work proposed in the bill but, as the Secretary pointed out, it would be considerably in excess of the cost of the types of shore protection recommended in the reports.

If improvements for purposes other than shore protection are desired, a survey will be necessary. The Department of the Army is not presently authorized to make such a survey.

(Letters referred to this project follow:)

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., July 27, 1955.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works, United States Senate,
Senate Office Building, Washington, D. C.

MY DEAR MR. CHAIRMAN: This is in reply to your letter of April 27, 1955, requesting the views of the Bureau of the Budget on S. 1817, a bill to authorize the appropriation of funds for the construction of a breakwater for the protection of the Cleveland, Lakewood, Rocky River, and Bay Village, Ohio, shore of Lake Erie.

The purpose of the bill is set forth in its title.

Reports on cooperative beach erosion control studies covering these portions of the shore of Lake Erie have been made by the Secretary of the Army, and are published in House Document No. 502, 81st Congress, and House Document No. 127, 83d Congress. These reports included recommendations for more economical types of shore protection than a breakwater. Work to protect publicly owned shores at Cleveland and Lakewood, Ohio, recommended in House Document 502, was authorized by the River and Harbor Act of 1954. Federal participation in the cost of shore protection at other areas was not recommended.

No estimate of cost of the breakwater which would be authorized by the enactment of S. 1817 is available, but the report which the Department of the Army is submitting to your committee indicates that it would be considerably

in excess of the costs of other types of effective shore protection considered for this area.

Accordingly, the Bureau of the Budget would recommend against enactment of S. 1817.

Sincerely yours,

PERCY RAPPAPORT,
Assistant Director.

AUGUST 5, 1955.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 1817, 84th Congress, a bill to authorize the appropriation of funds for the construction of a breakwater for the protection of the Cleveland, Lakewood, Rocky River, and Bay Village, Ohio, shore of Lake Erie.

The Department of the Army is opposed to the above-mentioned bill, the purpose of which is set forth sufficiently in its title.

The Corps of Engineers, in cooperation with the State of Ohio, conducted studies covering the area set forth in the bill in the interest of beach erosion control. The reports on these studies are published as House Document No. 502, 81st Congress, and House Document No. 127, 83d Congress. As a result of the studies, the reports recommended effective types of shore protection which are more economical than an offshore breakwater. With the exception of two publicly owned areas authorized for protection by the River and Harbor Act of 1954 (68 Stat. 1248) at an estimated Federal cost of $1,343,900, Federal participation in the cost of shore protection was not recommended in these reports for the reason that the shoreline is, for the most part, privately owned frontage and as such is not eligible for Federal participation in the cost of protective measures under existing beach erosion law.

This Department does not have an estimate as to the cost of the work proposed in the bill, however, as indicated, it would be considerably in excess of the cost of the types of shore protection recommended in the above-mentioned reports.

The Bureau of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

WILBER M. BRUCKER,
Secretary of the Army.

Senator HRUSKA. Is the beach erosion law applicable here the same as that which is applicable on seashore?

General WEAVER. Yes, sir. It was under that same law.

Senator HRUSKA. The same basic law applies to both situations?

General WEAVER. Yes, sir.

Senator HRUSKA. Why was that report made in 1948 and in 1952 in view of the fact that the bulk of the property involved here is privately owned?

General WEAVER. A very large percentage is privately owned. The city of Cleveland actually sponsored the first report in accordance with the law, and the report recommended 3 projects, 2 of which were authorized and the other deferred because the city of Cleveland was considering some work of its own.

I have a copy of the bill here. This bill refers to no report and does not indicate any estimate of costs.

There is one other factor. One of the reasons for the report being made was because the people in the local community, Cleveland and so on, were interested in finding out what plans, what protection, could be provided, and what was the most economical protection that could be provided. A cooperative study report was one way in which such information could be developed.

As you know, the local sponsor pays 50 percent of the cost of such studies.

Senator HRUSKA. Does that complete your statement, General?

General WEAVER. On this bill; yes, sir.

Senator KERR. Are there witnesses here with respect to the Waimea Beach and Hanapepe Bay, T. H.

I have a statement by Mrs. Joseph R. Farrington, Delegate to Congress from Hawaii, which will go in the record at this point.

(The statement is as follows:)

STATEMENT BY MRS. JOSEPH R. FARRINGTON, DELEGATE TO CONGRESS FROM HAWAII

Mr. Chairman, I appreciate the opportunity to present this statement to your committee to support the report of the Beach Erosion Board on the beach erosion control project at Waimea Beach and Hanapepe Bay on the island of Kauai, T. H. It is my understanding that the Corps of Engineers has submitted a favorable report on this project.

This has been under study for many years. I need hardly point out to the members of your committee the importance of the control of beach erosion. This is a constant problem in Hawaii, where our Territory is made up of a group of islands and where we are constantly having to take care of erosion on our beaches in all parts of the islands.

The Waimea Beach and Hanapepe Bay project covers an area on the south shore of the island of Kauai. Kauai is the northernmost island of our group and is called the Garden Island because of its exceptional beauty. One of the greatest charms of the islands is the beautiful beaches.

The recommended plans of protection of Waimea Beach and Hanapepe Bay will stabilize and protect the shoreline and protect adjacent property. The area is both privately and publicly owned. The engineers' report states that the benefits from the prevention of losses of the publicly owned lands and damages to public property justify the recommended protective measures. The Corps of Engineers recommends that the Federal Government participate to the extent of one-third of the costs of the work applicable to the publicly owned shores.

The estimated cost of the work at Waimea is $23,800 and at Hanapepe Bay $59,600. The Federal share is estimated at $4,000 for Waimea and $16,000 for Hanapepe, or a total Federal contribution of $20,000.

The improvements will consist of the construction of a rubble-mound seawall approximately 1,240 feet long at Waimea and 1,525 feet at Hanapepe.

The Territory is to provide all of the necessary lands, easements, and rights-of-way for the construction and maintenance of the improvement; assure the maintenance of protective measures for these improvements; and also give assurance of continued public ownership of the shores on which the amount of Federal participation is based and their administration for public use during the life of the project.

I urge that favorable considerable be given to the report by the Corps of Engineers and that this project be authorized in order to prevent further erosion of Waimea Beach and Hanapepe Bay and increase the recreational beach areas at Waimea Beach. This will be greatly appreciated by the people of Hawaii.

Senator HRUSKA. Is Waimea and Hanapepe Bay, T. H., also a beach erosion situation.

General WEAVER. I have a brief statement on this.

STATEMENT OF GEN. T. D. WEAVER, PRESIDENT OF THE BEACH EROSION BOARD

General WEAVER. This report that I am presenting to you covers the cooperative study made in cooperation with the Board of Harbor Commissioners in the Territory of Hawaii. It concerns two beach erosion problems of Waimea and Hanapepe on the island of Kauai, which is about 80 miles northwest of Oahu, the main island, where Honolulu is located.

These problem areas are located about 7 miles apart on the southern shore of the island. The report is made in accordance with section 2 of the Rivers and Harbors Act of July 1930.

There is no existing beach erosion control project on that island, and the report has not been published, although it has been submitted to the Congress.

I will take them up separately. Waimea is a village of 5,900 population and has a beach front of about 1 mile extending westward from this river (the Waimea River). There are 1,240 feet of shore involved in the problem area. This is a small pier and this is Waimea River and here is a flood wall supposed to keep the water from the river from flowing over onto the beach. Of that 1,240 feet length of beach, 624, or roughly half of it, is publicly owned. The problem is one of continuous recession of the shoreline. It averaged about 3 feet a year during the last 33 years. There is not enough beach material moving along the shore to correct the recession and erosion is eating back into the shore frontage. They have lost about 5,000 cubic yards of beach material per year during the last 20 years, and they have lost a total of 161,000 square feet of beach.

Senator HRUSKA. General Weaver, is the recession of the shoreline apart from the beach also affected? Does the shoreline aside from the beach recede as much and in the same ratio as the beach itself has done?

General WEAVER. Yes. Really the berm of the beach is cutting back in here.

Senator HRUSKA. The area line to the west of that beach, is that receding any?

General WEAVER. A little bit. That is not important because that area is not populated.

Senator HRUSKA. I understand it is not important. Is it a general condition or is it something that attaches to this piece of shoreline?

General WEAVER. The study did not go westward of that point, so that I can't say specifically. They made no comment on it because it wasn't included in the study area.

The local people naturally desire to have further erosion of the beach stopped. They also would like to have an increased recreational beach area in here. They also want a small breakwater out here to give better shelter for a small-boat harbor. That was not considered in the problem.

The solution, the recommendation of the district engineer on this, was that although for all purposes the placement of sand fill here with groins to hold it would give a superior solution, yet it is not an economical solution, and therefore he recommended that the 1,240 feet of beach there be protected by the construction of a rubble-mound seawall, at a total cost of $23,800, of which the Federal share would only be $4,000. You notice that that takes cognizance of the sections under private ownership there; in other words, the Federal share being based on one-third of the cost of the protection of only the publicly owned property.

The annual charges for such construction would amount to $1,029, of which the Federal share would be only $141.

The annual benefits were $1,116, of which $922 was prevention of land loss, not beach loss, but land loss, and $194 was the elimination

of maintenance of the road along in here, and of some maintenance on this pier, making a benefit-cost ratio of 1.08 to 1 for that particular project.

Hanapepe, which presents a somewhat similar condition, is a village of 1,500 population. They have a port here, Port Allen Harbor, and a pier which are not in the immediate problem area. The beach front is 1,525 feet in length. Back of that beach is a hard surfaced road, with a public cemetery in here [pointing to west end]. There is a National Guard Armory here, and a vocational school and tennis court and pavillion and park. The beach has been eroding constantly. The material moves to the eastward toward the mouth of the Hanapepe River. It builds up here but is denuded here [pointing].

The local people want to have the problem corrected because they have moved that road back three times. And now they have gotten back to where they can't move the road any more and will have to relocate it at some other place.

The cemetery is threatened. Unless the land in front of it is stabilized and prevented from further erosion, they estimate that that cemetery will have to be moved entirely in 15 years.

The local people of course want to stop that erosion. The district engineer, the reporting officers, recommend the protection of this shore by a rubble mound seawall with a total length of 1,525 feet. Even though placement of sand fills and groins would give a better job, they would be more expensive. This is a more economical protection for that stretch of shore. The total cost of this work is $59,600, of which $16,000 would be the Federal share.

The annual charges are estimated at $2,642, of which $564 would be the Federal share for interest and amortization.

The annual benefits are estimated at $3,664, thus making a ratio of benefits to cost of 1.39 to 1 at the current prices.

The terms of local cooperation on these projects are those usual for beach erosion control. They must obtain first the approval of the Chief of Engineers prior to the commencement of work on either project of the detailed plans and specifications, and of the arrangements for the prosecution of the work on that project. The local people must provide at their own expense all lands, easements and rights-of-way for accomplishment of the work and give assurances that they will continue public ownership of the shores on which the amount of Federal participation in the cost is based and that the shores will be administered for public use during the useful life of the project. Local interests must maintain the protective measures during their useful life as may be required to serve their purpose.

The board of harbor commissioners, the sponsoring agency in Hawaii, are favorable to this project. They look forward to an increased tourist business in that country and think that some day some time these beaches should be increased in area. However, they are favorable to this project. The Bureau of the Budget does not object to the submission of the report.

Senator HRUSKA. General, are there any similar beach erosion projects in this general area?

General WEAVER. Not on this island. This is the only one on the island of Kauai. The only beach erosion project in the whole Territory was at Waikiki, authorized some years ago.

Senator HRUSKA. The standards applied here and the recommendations and report which you make are in keeping with the same standards that are applied here in the continental United States?

General WEAVER. Yes, sir. They are exactly the same.

Senator HRUSKA. Under that same beach erosion law to which you referred?

General WEAVER. Public Law 727. That report, I may say, was approved by the Beach Erosion Board on the 17th of January 1956 and by the Chief of Engineers on the 26th of April 1956 and has been transmitted to the Congress. There is no objection to it by the Bureau of the Budget.

Senator HRUSKA. Thank you. Does that complete your statement?

General WEAVER. Yes, sir.

(Documents relating to this project follow:)

STATEMENT BY BRIG. GEN. THERON D. WEAVER, UNITED STATES ARMY, PRESIDENT, BEACH EROSION BOARD

The report on protection against beach erosion at Waimea and Hanapepe on Kauai Island is presented in a study made in cooperation with the Board of Harbor Commissioners of the Territory of Hawaii as authorized under the River and Harbor Act of July 3, 1930. The report has not been published. There is no existing beach erosion control project on Kauai.

Waimea, with a population of 5,900, and Hanapepe, with a population of 1,500 are villages located about 7 miles apart on the south shore of the Island of Kauai which is some 80 miles northwest of Oahu.

Waimea.—Waimea has a beach front of 1 mile extending westward from the Waimea River. The problem area is 1,240 feet in length starting 500 feet west of the river. Of this frontage 624 feet, or about half, is publicly owned. A street, residences, and a public park face the shore.

A flood wall along the west side of the river functions also as a jetty but is subject to occasional overtopping by flood waters. In 1949 the flood waters flowed across the beach and destroyed several houses, a pavilion in the public park, boathouses, and walls along the beach. The existing emergency revetment and walls along the shore are generally inadequate to prevent erosion damage. A critical erosion problem has existed for many years. Recession of the shore line amounted to an average of 3 feet per year for the last 33 years. From 1918 to 1926 about 161,000 square feet of beach area was lost and since 1926 about 5,000 cubic yards of beach material has been lost annually.

Local interests desire that further erosion of the beach be prevented and that the usable recreational beach area be increased.

The report indicates that a beach fill operation would be a superior solution to the problem but recommends as most practicable and economical a project for beach protection by construction of 1,240 lineal feet of rubble mound sea wall at a total estimated first cost at 1956 prices of $23,800 of which the Federal share would be $4,000. Annual charges are estimated at $1,029 of which $141 would be Federal. Annual benefits total $1,116 of which $922 is for prevention of land loss and $194 results from the elimination of repairs to the road and a small pier. The ratio of benefits to costs is 1.08 to 1.00.

Hanapepe.—Hanapepe has a beach front of 1,525 feet extending westward from the Hanapepe River. Of this 1,225 feet, or about 80 percent, is publicly owned. A hard surfaced road parallels the beach and just in rear of the road are a public park with a pavilion, a National Guard armory, a vocational school, and a public cemetery.

Emergency riprap walls and revetment to protect the road from erosion damage are inadequate. Beach material moves from west to east and forms a bar across the mouth of the river where river floods also deposit much material; but there is continuous erosion at the west end of the beach. The road has been moved back 3 times in the last 15 years but it cannot be moved again. A new road will have to be constructed. The cemetery is threatened and will have to be relocated within 15 years unless further erosion is stopped.

Local interests desire that further erosion be prevented.

The report indicates that a beach fill with groins to hold the fill would be a superior solution for this problem but recommends the construction of 1,525 lineal feet of rubble mound sea wall as being the most practicable and economical solution. The total estimated first cost of such a wall at 1956 prices is $59,600 of which the Federal share would be $16,000. The annual charges would be $2,642 of which $564 would be Federal. The annual benefits are estimated at $3,664 of which $2,935 is for prevention of land loss, $243 is for prevention of road relocation and $486 is for prevention of cemetery relocation. The ratio of benefits to costs is 1.39 to 1.

Combined projects.—Totals for the two projects: First costs, $83,400 of which $20,000 would be the Federal share; annual charges, $3,671 of which $705 would be Federal; annual benefits, $4,780; and ratio of benefits to cost, 1.3 to 1.0.

Local cooperation.—Requirements of local cooperation are that local interests will—

(1) Obtain the approval of the Chief of Engineers, prior to commencement of work on either project, of detailed plans and specifications and on arrangements for prosecuting the work on that project;

(2) Provide at their own expense all necessary lands, easements and rights-of-way for accomplishment of the work; and

(3) Give satisfactory assurances that they will:

(*a*) Maintain the protective measures during their useful lives as may be required to serve their intended purposes;

(*b*) Maintain continued public ownership of the shores on which the amount of Federal participation is based, and their administration for public use during the useful lives of the projects.

Agency comments.—The board of harbor commissioners of the Territory concurs in the recommended projects but believes that because of the growing need for additional beaches for recreational purposes measures to conserve and restore the beaches seaward of the seawalls will eventually be necessary.

The Bureau of the Budget offers no objection to the submission of the report.

Waimea Beach and Hanapepe Bay, Kauai, T. H. (Beach Erosion)

(House document not yet printed)

Location: Waimea Beach and Hanapepe Bay, two localities about 7 miles apart, are on the southerly side of the island of Kauai, T. H.

Report authorized by section 2 of River and Harbor Act approved July 3, 1930, as amended and supplemented.

Existing project: No existing beach erosion project.

Plan of recommended improvement: Provides for construction of two rubble-mound seawalls 1,240 feet and 1,525 feet long at Waimea Beach and Hanapepe Bay, respectively.

Estimated cost (report current)

	Federal	Non-Federal	Total
Waimea Beach	$4,000	$19,800	$23,800
Hanapepe Bay	16,000	43,600	59,600

Local cooperation: Submit for approval by the Chief of Engineers, prior to commencement of work on either project, detailed plans and specifications and arrangements for prosecuting work on that project; provide all necessary lands, easements and rights-of-way; give satisfactory assurances that local interest will maintain the protective measures during their useful lives as may be required to serve their intended purpose; maintain continued public ownership of the shores on which the amount of Federal participation is based, and their administration for public use during the useful lives of the projects.

Project economics

	Report (current)	
	Waimea Beach	Hanapepe Bay
Annual charges	$1,029	$2,642
Annual benefits:		
Prevention of loss of land	922	3,421
Elimination of repair costs	194	243
Total	1,116	3,664
Benefit cost ratio	1.08	1.39

Comments of the Bureau of the Budget.—No objection to submission of the report to Congress.

STATEMENT OF BRIG. GEN. THERON D. WEAVER, UNITED STATES ARMY

Mr. Chairman and gentlemen, both bills under consideration, S. 3551 and H. R. 11861, would so modify the existing provisions of Public Law 727, 79th Congress, 2d session, approved August 13, 1946, authorizing Federal participation in the cost of protecting publicly owned shores against erosion by waves and currents as to permit Federal assistance in the protection of private property. As you know, such Federal assistance is now limited to publicly owned shores.

S. 3551 is identical in language to H. R. 4470 on which the Department of the Army's views were expressed by the Secretary of the Army in his letter of July 15, 1955, addressed to the chairman of the House Committee on Public Works and which were reiterated during hearings held by that committee earlier this year. The records of the committee's hearings contain the details of the Army's views. In brief, the Army considered that under certain conditions it would be in the public interest to protect private property. The Secretary's letter commented on the desirability of eliminating the now unnecessary special consideration given to protection by seawalls under existing law and noted too the desirability of modifying existing law so as to permit Federal assistance toward periodic beach nourishment rather than having such nourishment, subsequent to the initial construction, construed as maintenance to be paid for entirely by local interests. The Secretary commented also on other features of the bill.

On June 25, 1956, the Secretary of the Army responded to a letter of June 13 from the chairman of the House Public Works Committee requesting the views of the Department of the Army with respect to a revision of H. R. 4470 as proposed by the committee. The Secretary's reply is quoted verbatim in the report of the committee on H. R. 11861. The Secretary noted the proposed criteria to govern the extension of Federal assistance to private property and suggested additional wording to clarify the conditions under which such Federal assistance might be given and to indicate the intent that the Federal contribution to a project shall be adjusted in accordance with the degree of the benefits.

The Secretary also noted the desirability of other proposed revisions, such as the deletion of the existing seawall clause, the addition of periodic beach nourishment for a term of years to be specified in each case by the Chief of Engineers as being eligible for Federal assistance, the inclusion of the shores of the Territories and the United States possessions as definitely within the scope of the law, and the substitution of the term "restoration" in place of the term "improvement" used in the 1946 act.

The Secretary stated that the Department of the Army offered no objection to the enactment of the proposed revision of H. R. 4470 if further revised in accordance with his comments as expressed in the letter of June 25. Because of the short time available the views of the Department of the Army were submitted without prior determination by the Bureau of the Budget as to whether or not the measure conforms to the program of the President. The Department was advised informally on July 5 that the Bureau does not object to the submission of the Department of the Army's views as given in the letter of June 25.

H. R. 11861, the revision of H. R. 4470, as passed by the House on July 2, 1956, conforms closely with the views of the Department of the Army and the Department offers no objection to its enactment into law.

DEPARTMENT OF THE ARMY,
May 22, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 3551, 84th Congress, a bill to amend the act entitled "An act authorizing Federal participation in the cost of protecting the shores of publicly owned property," approved August 13, 1946.

The Department of the Army has considered the above-mentioned bill which provides for amendments to the act of August 13, 1946 (60 Stat. 1056), pertaining to shore protection. The proposed amendments to existing law and the views of the Department of the Army, including certain suggested changes, are set forth more specifically below.

Section 1 of the act of 1946 declared it to be the policy of the United States, with the purpose of preventing damage to public property and promoting and encouraging the healthful recreation of the people, to assist in the construction, but not the maintenance, of works for the improvement and protection against erosion by waves and currents of the shores of the United States that are owned by States, municipalities, or other political subdivisions, subject to certain stipulations, including provisos that the Federal contribution toward the construction of protective works shall not in any case exceed one-third of the total cost and that the plan of protection shall have been specifically adopted and authorized by Congress after investigation and study by the Beach Erosion Board.

S. 3551 would amend the basic policy in the 1946 act by extending Federal assistance to restoration and protection of privately owned shores. While the Department of the Army, based on experience to date, considers that it would be in the public interest to protect private property in certain cases, it is suggested that the law specifically define the conditions under which Federal assistance toward such protection would be provided. The following criteria are suggested for specification in the law:

1. (*a*) The shores must be available, accessible and suitable for public use, and satisfactory assurances must be given that they will remain in public use throughout the useful life of the project; or

(*b*) The privately owned shores must serve to protect adjoining publicly owned property under conditions which make it economically advantageous to preserve the privately owned shore in order to prevent imminent damage to public property; or

(*c*) The privately owned shores are so situated as to receive incidental benefit from the project at no added cost;

2. Except where private benefits are entirely incidental, the Federal contribution toward the cost should be reduced below the maximum permitted by law in the ratio that estimated private benefits bear to estimated total benefits.

Section 1 (a) (1) of S. 3551 would change the language of the act of 1946 from "* * * assist in the construction * * *" to "* * * assist in paying the cost of projects, initiated by States or political subdivisions thereof, for the construction * * *." The purpose of this change in language is not clear, but it may be intended to make eligible for Federal reimbursement, works which were planned and accomplished entirely as local projects without prior aid of a cooperative study by the Beach Erosion Board created by the act of July 3, 1930 (46 Stat. 945). Any change in the law which would permit such an interpretation is believed to be undesirable. Such local works, mostly unsuccessful, have probably cost in the aggregate many millions of dollars. Technical and economic evaluation of the worth of such works would be difficult and controversial, and establishment now of such a retroactive policy would be without precedent in Federal public works.

Section 1 (a) of S. 3551 would amend the provision in the act of 1946 which authorizes Federal aid toward the repair and protection of seawalls heretofore constructed by political subdivisions to protect important public highways. The amendment proposed would provide Federal aid additionally to seawalls hereafter constructed, and would further make possible retroactive reimbursement for previous repairs and improvements of such seawalls by local interests. The Department of the Army believes that studies by the Beach Erosion Board provide a means for securing appropriate Federal aid for any shore-protection measures hereafter required. The Department does not favor any general provision of law which would provide retroactive reimbursement for works constructed

without benefit of a prior study by the Board. It is believed that the seawall proviso in the 1946 act provides unwarranted special consideration for shores which have been protected by seawalls as compared with shores protected by other means, and that a more equitable basis for Federal aid would be established by deletion rather than amendment of the seawall proviso.

Section 1 (c) of S. 3551 may be construed to authorize Federal studies of seawall-protected shores without the customary requirement for a local contribution toward the cost of the study. It is believed that seawall studies should meet the same conditions of local cooperation as other cooperative beach-erosion studies. Section 1 (c) would thus be unnecessary.

The Department of the Army offers no objection to the enactment of S. 3551 of revised in accordance with the foregoing comments. However, the Department is of the opinion that certain additional modifications of existing law pertaining to shore protection would be advisable in the public interest. These modifications concern Federal assistance toward periodic beach nourishment, and the exclusion from the limitation of Federal assistance of those remedial measures necessitated by coastal works owned by the United States and constructed or acquired specifically for purposes of the Armed Forces. Since the Bureau of the Budget is of the opinion that such modifications are not germane to the introduced bills, consideration is being given to the submission of those additional provisions as a separate legislative proposal.

This Department has no information as to the fiscal effect of enactment of the bill.

The Bureau of the Budget advised that there would be no objection to the submission of a similar report on a companion bill, H. R. 4470.

Sincerely yours,

WILBER M. BRUCKER,
Secretary of the Army.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., June 18, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works, United States Senate,
Washington, D. C.

MY DEAR MR. CHAIRMAN: This will acknowledge your request for the views of the Bureau of the Budget on S. 3551, to amend the act entitled "An act authorizing Federal participation in the cost of protecting the shores of publicly owned property," approved August 13, 1946.

The Bureau of the Budget concurs in the recommendations of the Secretary of the Army for amendment of the bill contained in his letter to you of May 22, 1956. Accordingly, if amended as recommended by the Secretary of the Army, the Bureau of the Budget would have no objection to the enactment of S. 3551.

Sincerely yours,

(Signed) ROBERT E. MERRIAM,
Assistant to the Director.

STATEMENT OF REPRESENTATIVE RUSSELL V. MACK, WASHINGTON

Mr. Chairman and members of the committee, erosion on our ocean and lakeshores has always been a serious problem and some 10 years ago Congress passed legislation designed to assist in the prevention of the tremendous losses which were occurring because of this washing away of our shorelines.

The Beach Erosion Act of 1946 established the policy that the Federal Government could participate in the construction of shore-protection works where publicly owned property was involved. The value of this legislation has already been proven by the worthwhile projects already constructed.

The purpose of the bill before you, H. R. 11861, is to extend the policy of Federal participation in beach erosion protective works to shores of privately owned properties under certain circumstances as well as the shores of publicly owned property.

It is an unescapable fact that erosion of the shores of oceans, lakes, and bays causes a loss of land which is one of our natural resources. This is true whether the land involved is publicly or privately owned. There are many cases of beach

erosion where the shoreline property is privately owned but where if the erosion continues unabated, adjacent public property will soon be endangered. The bill under consideration will allow the Federal Government to assist in the protection of such cases where protection of nearby public property is involved or where some benefit may accrue from the public use of the shoreland involved.

A good case in point is found in my own district where a narrow peninsula, Tokeland Point, is being rapidly eroded by action of the ocean currents. This peninsula lies at the north entrance of Willapa Harbor, The Pacific Ocean is on one side and Willapa Bay on the other. On the ocean side the land is privately owned and is being eroded at an alarming rate. If this continues the entire peninsula will disappear in a few years. On the bay side of this peninsula is the community of Tokeland. A long-established commercial fishing base is located here as well as other commercial operations and a United States Coast Guard station.

Here is an example of a dangerous situation which can be corrected by the enactment of H. R. 11861. Under present law the Federal Government cannot participate in the beach-erosion protection of Tokeland Point because the land presently being eroded is privately owned. If the erosion is allowed to continue the community of Tokeland, the fishing base which has been partly constructed by the Government, and the Coast Guard station which is being rebuilt at the present time will soon be threatened. If the ocean is allowed to completely erode the private land, it will then be too late to save he publicly owned property.

I am sure that there are many such cases along our ocean and lakeshores where an extension of our present policy of beach-erosion protection to private property will prove of great benefit to public interest. I believe that H. R. 11861 provides a valuable extension of our present beach-erosion laws and recommend its enactment.

VILLAGE OF SALTAIRE,
Suffolk County, N. Y., July 16, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
Senate Office Building, Washington, D. C.

DEAR SENATOR CHAVEZ: May I, on behalf of the board of trustees of our village, respectfully urge favorable action by your committee on H. R. 11861, the act to amend Public Law 727 of the 79th Congress, to permit Federal participation in the construction of coastal protective measures on private property.

The compelling necessity of legislation of this character was conclusively demonstrated in the hearings held by the Subcommittee on Rivers and Harbors of the House of Representatives and in surveys conducted by the Beach Erosion Board and the Army Corps of Engineers.

Very truly yours,

JOHN A. LUDLOW, *Mayor.*

SEAVIEW ASSOCIATION OF FIRE ISLAND, N. Y., INC.,
July 17, 1956.

Senator DENNIS CHAVEZ,
Chairman, Senate Committee on Public Works,
Senate Office Building, Washington, D. C.

MY DEAR SENATOR CHAVEZ: Our association, representing the homeowners of a community bordering the Atlantic Ocean, respectfully urge favorable action on H. R. 11861, the act to amend Public Law 727, 79th Congress, which has been passed by the House and, as we are informed, referred to your committee.

The imperative necessity of this legislation, which is designed to protect the entire coastal area of our Nation, was fully demonstrated in the hearings before the Subcommittee on Rivers and Harbors and in the report of that subcommittee.

Since it is reported that there will be an early adjournment of Congress, we sincerely hope that a favorable report will be made by your committee that passage will be effected by the Senate before adjournment. The widespread support of the bill by many Members of Congress, the Department of the Army, numerous State and local governments would indicate that it merits your early approval.

Sincerely yours,

LEONARD FEIST, *President.*

[H. R. 11861, 84th Cong., 2d sess.]

AN ACT To amend the Act entitled "An Act authorizing Federal participation in the cost of protecting the shores of publicly owned property," approved August 13, 1946

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act entitled "an Act authorizing Federal participation in the cost of protecting the shores of publicly owned property", approved August 13, 1946, is hereby amended to read as follows: "That (a) with the purpose of preventing damage to the shores of the United States, its Territories and possessions and promoting and encouraging the healthful recreation of the people, it is hereby declared to be the policy of the United States, subject to the following provisions of this Act to assist in the construction, but not the maintenance, of works for the restoration and protection against erosion, by waves and currents, of the shores of the United States, its Territories and possessions.

"(b) The Federal contribution in the case of any project referred to in subsection (a) shall not exceed one-third of the cost of the project, and the remainder shall be paid by the State, municipality, or other political subdivision in which the project is located.

"(c) When in the opinion of the Chief of Engineers the most suitable and economical remedial measures would be provided by periodic beach nourishment, the term 'construction' may be construed for the purposes of this Act to include the deposit of sand fill at suitable intervals of time to furnish sand supply to project shores for a length of time specified by the Chief of Engineers.

"(d) Shores other than public will be eligible for Federal assistance if there is benefit such as that arising from public use or from the protection of nearby public property or if the benefits to those shores are incidental to the project, and the Federal contribution to the project shall be adjusted in accordance with the degree of such benefits.

"(e) No Federal contribution shall be made with respect to a project under this Act unless the plan therefor shall have been specifically adopted and authorized by Congress after investigation and study by the Beach Erosion Board under the provisions of section 2 of the River and Harbor Act approved July 3, 1930, as amended and supplemented.

"SEC. 2. When the Chief of Engineers shall find that any such project has been constructed in accordance with the authorized plans and specifications he shall cause to be paid to the State, municipality, or other political subdivision involved the amount authorized by Congress.

"SEC. 3. The Chief of Engineers may, in his discretion, from time to time, make payments on such construction as the work progresses, but these payments, including previous payments, if any, shall not be more than the United States pro rata part of the value of the labor and materials which have been actually put into such construction in conformity to said plans and specifications: *Provided*, That the construction of restoration and protective works under this Act may be undertaken by the Chief of Engineers upon the request of, and contribution of required funds by, the interested State, municipality, or other political subdivision.

"SEC. 4. As used in this Act, the word 'shores' includes all the shorelines of the Atlantic and Pacific Oceans, the Gulf of Mexico, the Great Lakes, and lakes, estuaries, and bays directly connected therewith."

Passed the House of Representatives July 2, 1956.

Attest:

RALPH R. ROBERTS, *Clerk*.

Senator KERR. All right. Senator Long.

STATEMENT OF HON. RUSSELL LONG, UNITED STATES SENATOR FROM THE STATE OF LOUISIANA

Senator LONG. Thank you, Mr. Chairman. You have been most considerate of our problems in Louisiana, and the gulf area.

I believe this map here will explain what our problem is, Senator. and we have a waterway that is about 6 feet deep, which goes from the intracoastal canal down into Grand Isle.

Senator KERR. Where is the Mississippi River?

Senator LONG. Here is the Mississippi River as shown in blue on that map. It would save about 110 miles to get into this offshore area on a round trip, or about 55 miles one way.

If that is barged and the equipment is used to develop all these offshore leases, this waterway which already exists would need about a 12-foot depth, which would bring this waterway into line with the intracoastal canal that is ordinarily used by such traffic, and it would cost approximately $1,700,000 to deepen this waterway to 12 feet.

Senator KERR. It would cost about how much?

Senator LONG. About $1,750,000 to deepen this waterway to make it correspond to the depth of the intracoastal waterway.

The saving, of course, would be very great, and the Federal Government has a very great interest in this matter.

As the Senator well knows, the Government has realized almost $200 million in leasing this area here for oil and gas development.

Senator KERR. About the title of which there was some controversy.

Senator LONG. Yes, sir; still are some claims about that matter.

Senator KERR. But they received that much from the area which has been decided they have clear title to?

Senator LONG. That is correct, and there is no doubt about it that there will be a tremendous return indirectly, and in some respects even directly, to the Federal Government from deepening this waterway.

My colleague, Senator Ellender, is also very much interested in this matter.

Senator KERR. He sent word that he was greatly interested, but that he was compelled to be in another committee meeting because he was conducting the hearing, so we will insert his statement along with other items on this matter.

(The letters referred to follow:)

[S. 3867, 84th Cong., 2d sess.]

A BILL To provide for the improvement of the waterway between Barataria Bay, Louisiana, and the Gulf of Mexico

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the project for the Gulf Intracoastal Waterway between Apalachee Bay, Florida, and the Mexican border is hereby modified and expanded to provide for improvements in the Barataria Bay Waterway, Louisiana, consisting of a channel twelve feet deep and one hundred and twenty-five feet wide from the Intracoastal Waterway in Louisiana to Grand Isle, Louisiana, and thence to the twelve-foot depth in the Gulf of Mexico, substantially in accordance with the plan recommended by the Chief of Engineers, United States Army, at an estimated construction cost of $1,697,000 to the United States and $242,000 to local interests, and an estimated annual maintenance cost of $80,000 to the United States.

DEPARTMENT OF THE ARMY,
June 12, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 3867, 84th Congress, a bill to provide for the improvement of the waterway between Barataria Bay, La., and the Gulf of Mexico.

The Department of the Army has considered the above-mentioned bill. The purpose of the bill is to modify the project for the Gulf Intracoastal Waterway between Apalachee Bay, Fla., and the Mexican border through provision of improvements in the Barataria Bay Waterway, La., to consist of a channel 12 feet

deep and 125 feet wide from the intracoastal waterway to Grand Isle, La., and thence to the 12-foot depth in the Gulf of Mexico.

A survey report, authorized by the River and Harbor Act of 1945 (59 Stat. 10), covering improvement of the waterway between Barataria Bay and the gulf is now before the Board of Engineers for Rivers and Harbors.

Inasmuch as the report on the area covered by the bill has not yet been completed, the Department of the Army is not in a position to comment on the improvement proposed in S. 3867. It is suggested that the committee defer action on authorizing legislation until the survey report on the waterway has been submitted to Congress.

The Bureau of the Budget advised that there would be no objection to the submission of a similar report on a companion bill, H. R. 1770.

Sincerely yours,

WILBER M. BRUCKER,
Secretary of the Army.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., June 4, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works, United States Senate,
Senate Office Building, Washington, D. C.

MY DEAR MR. CHAIRMAN: This will acknowledge your request for the views of the Bureau of the Budget on S. 3867, to provide for the improvement of the waterway between Barataria Bay, La., and the Gulf of Mexico.

The Department of the Army has not yet submitted its final report on this proposed project to the Bureau of the Budget under procedures prescribed by Executive Order 9384. Until this report has been received the Bureau of the Budget has no basis for appraising the merits of the proposed improvement.

Accordingly, the Bureau of the Budget would recommend that authorization of the project be deferred until a project report has been submitted to the Congress under established procedures. In addition, the Bureau would question, whether, except in emergencies or rare instances of very large multiple-purpose projects, single project bills should be favorably considered. The Congress has customarily taken up from time to time all project reports pending before it and has enacted a general river and harbor and flood-control bill. It is our belief that such consideration of the relative merits of a number of projects provides a better basis of selection than piecemeal action on individual bills.

Sincerely yours,

ROBERT E. MERRIAM, *Assistant to the Director.*

MISSISSIPPI VALLEY ASSOCIATION,
New Orleans, La., June 25, 1956.

Hon. ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on Flood Control and Rivers and Harbors, Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: It is our understanding that your Public Works Subcommittee on Flood Control and Rivers and Harbors will consider for authorization, the Barataria Bay Waterway in Louisiana.

This project has the unanimous support of our membership, as was evidenced by the action earlier this year of the 1,100 delegates to our last annual meeting, the 37th such annual meeting of the Mississippi Valley Association.

The Barataria Bay Waterway is used by vessels engaged in the movement of crude oil, supplies, and equipment for the drilling of offshore and inshore oil wells; in the shrimping and oyster fisheries; and in pleasure fishing and yachting.

Currently, the shallow depths and narrow bottom widths preclude the use of marine equipment of adequate and economical size and full cargo capacity of barges now being used, as well as causing costly delays to vessels using the waterway.

To render this waterway capable of accommodating its full potential, the Corps of Engineers, United States Army, has proposed a channel 12 by 125 feet, with relocation of a portion of the project to the western side of Barataria Bay to

provide a route free from wave action; and extension of the project to the 12-foot contour in the gulf, plus dredging of 3.2 miles of Bayou Rigaud at its eastern end.

That the project is economically feasible is apparent from the very favorable benefit-to-cost ratio of 4.1 to 1. The total cost of the project is estimated to be $1,939,000 with local interests to provide $242,000, leaving $1,697,000 as Federal costs.

In view of the pressing need for this project and the attendant great economic benefits that will obtain with its completion, we respectfully request your favorable consideration and authorization of this Barataria Bay Waterway.

Thanking you for your consideration and with every good wish, we remain

Sincerely yours,

ROBERT L. SHORTLE,
Division Manager.

CHAMBER OF COMMERCE OF THE NEW ORLEANS AREA,
New Orleans, La., July 6, 1956.

Hon. ROBERT S. KERR,
Chairman, and Members of the Subcommittee on Flood Control—Rivers and Harbors, Senate Public Works Committee, United States Senate, Washington, D. C.

GENTLEMEN: The board of directors of our organization at its meeting on July 3 unanimously endorsed S. 3867, introduced by Senators Ellender and Long, to provide for the improvement of the Barataria Bay Waterway, La., from the Intracoastal Waterway in Louisiana to the Gulf of Mexico at Grand Isle.

The United States Army Corps of Engineers survey of this proposed project indicates that it is warranted and necessary. The benefit-cost ratio, as determined by the Corps of Engineers, of 4 to 1 clearly reveals the economic justification for the project.

The existing narrow channel, with a controlling depth of only 4½ feet, presents a hazard to navigation and a constant threat to the safety of personnel aboard floating equipment using the waterway due to the fact that strong north winds frequently depress the water in this shallow bay as much as 3 feet, stopping traffic. The improvement of the waterway is urgently needed, particularly by industries involved with the development, servicing and production of offshore oil along the coast of Louisiana. Tonnage now moving over the waterway is considerable and will continue to grow as operations increase. This route provides a substantially shorter distance to the offshore developments than the Mississippi River, and is equally essential to the important oyster and shrimp industry.

The development of this waterway to a depth of 12 feet and a width of 125 feet will provide a valuable commercial artery to the gulf which will be vitally essential in time of national emergency.

The importance of the development of this waterway, which joins the Intracoastal Waterway in the vicinity of Lafitte, La., with arteries entering the Mississippi River at New Orleans at the Harvey and Algiers locks, is further emphasized by the fact that it will also tie in with the Bayou Segnette Waterway development project, which extends from the Lafitte area to Westwego, and for which funds have already been made available by the Congress.

May we respectfully urge that your committee favorably report S. 3867 proposing thei mprovement of the Barataria Bay Waterway as an important and valuable link in the gulf intracoastal waterway system of our Nation.

Sincerely yours,

W. F. RIGGS, JR.,
Executive Vice President.

NEW ORLEANS, *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on Flood Control—Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: Please refer to bill S. 3867, 2d session, 84th Congress, covering proposed improvements in the Barataria Bay Waterways, La.

It is our opinion that, because of the recent extensive developments of offshore oil operations in the Gulf of Mexico, and the tremendous increase in the use of this waterway up to date and the anticipated even greater use in the future, it

is very important to New Orleans and south Louisiana that this bill be passed and the money approved for this work.

We are a large user of these waterways and shall appreciate your every consideration.

Very truly yours,

W. HORACE WILLIAMS CO.,
R. E. GOSA, *First Vice-President.*

HARVEY, LA., *June 28, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We respectfully petition you and your colleagues to vote favorably on S. 3867, a bill by Senators Allen J. Ellender and Russell B. Long to provide for the improvement of the waterway between Barataria Bay, La., and the Gulf of Mexico.

Oil companies, oil-supply houses, fishermen, and movers of heavy equipment are in great need of this waterway.

The existing channel is shallow with many obstacles to navigation. In spite of this, annual tonnage over the present waterway, which has a controlling depth of 4½ feet, has grown tremendously in recent years. In 1944 there was 127,280 tons moved over this shallow waterway. Two years ago 694,695 tons of material were moved.

The proposed channel would make it possible for barge traffic operating out of the Gulf of Mexico in the vicinity of Grande Isle to enter the Inland Waterway System near Barataria which is about 14½ miles from the Mississippi River via the Harvey lock and about 17½ miles via the recently dedicated Algiers lock. At the present time equipment which draws over 4 feet of water must make a circuitous route. As a matter of fact, there is no way by which deeper draft barges operating into and out of the Gulf of Mexico along the southern border of Louisiana can enter the Inland Waterway System except through the long route of the Mississippi River or through the deep water Calcasieu Channel near Lake Charles.

The Corps of Engineers' survey clearly indicates the advantages of the Barataria Bay Waterway and we support the corps and its recommendations.

Enlargement of the navigation channel between the Gulf of Mexico and the Gulf Intracoastal Waterway, as proposed in S. 3867 will give a safe, short route to deep water and break a very serious bottleneck.

The benefit-cost ratio of 4.1 to 1 clearly shows the economic merit of the proposed project.

The needs for this enlarged channel are increasing day by day, and we respectfully urge the favorable action of your committee so that the project can be included in the omnibus bill and construction can be started in 1957.

We should like to call to the attention of the Senators that S. 3867 has the support of seafood industries, dredging companies, oil companies, barge companies, shell companies, oil-material companies, as well as individuals and agencies interested in the improvement of waterway traffic and the proper development of this important segment of our economy.

Sincerely,

HARVEY CANAL INDUSTRIAL ASSOCIATION, INC.,
FRANK A. M. WILLIAMS, *President.*

HARVEY, LA., *June 29, 1956.*

Hon. ROBERT S. KERR,
Senate Office Building, Washington, D. C.

DEAR SIR: We understand that a bill has been introduced by our Senators Ellender and Long to improve the water access between the Mississippi River and the Gulf of Mexico by way of Barataria Bay. We have been informed that this is bill S. 3867.

As operators of small boats (50 to 70 feet) and a number of small barges, we have found it necessary to use the present waterway which approximately follows that, as outlined in S. 3867, because this is the only practical route between Harvey and Grand Isle.

Even with the small equipment which we operate, we have had innumerable cases of underwater damage as a result of the shallow water in the present route, and because of many bends and hidden obstructions.

We believe that there is little question that opening up the route, as mentioned, would be one of the most valuable waterways improvements in this area and it would unquestionably support a very heavy flow of traffic.

We will certainly appreciate your thorough consideration of this measure.

Yours very truly,

GENERAL MARINE CORP.,
WALLACE M. TAYLOR, *President.*

HARVEY, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee
on Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We would appreciate your support to promote passage of bill S. 3867, for improvement to the waterway from Barataria Bay to the Gulf of Mexico.

The existing channel is too shallow, with many obstacles to navigation, all of which can be corrected by a favorable vote on bill S. 3867.

Sincerely,

ORLEANS BARGE CO.,
J. HAROLD LEVY.

HARVEY, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee
on Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We endorse and give our support to bill S. 3867.

Enlargement of the navigation channel between the Gulf of Mexico and the Gulf Intercoastal Waterway, as proposed in S. 3867, will give a safe, short route to deep water and break a serious bottleneck in the movement of this much-used water route.

We urge and would appreciate your support to promote passage of bill S. 3867.

Sincerely,

FIFTY MARINE SERVICE,
PHILIP ALES.

NEW ORLEANS, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee
on Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We extend our full support and earnest endorsement to the proposal submitted by the Harvey Canal Industrial Association, Inc., of which this firm is a member.

We shall also do all we possibly can to promote passage of bill S. 3867, as this improvement to the waterway is urgently needed.

Sincerely,

ROSS-WADICK SUPPLY CO.,
G. E. MARKLAND.

HARVEY, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: Please be advised that we wish to extend our full support and endorsement to the proposal submitted by the Harvey Canal Industrial Association, Inc., of which this firm is a member.

We would further like to stress that we shall do all we can, as an individual, to promote passage of bill S. 3867, as this improvement to the waterway is urgently needed.

Very truly yours,

HARVEY CANAL SHIPYARD AND MACHINE SHOP,
L. J. DONNAUD, *President.*

HARVEY, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We wish to express our support and backing for the Harvey Canal Industrial Association in promoting the passage of bill S. 3867 for the waterway improvement from Barataria Bay to the Gulf of Mexico.

This waterway will be a great asset to the industry of the area, and a substantial benefit to the community and the State.

Yours very truly,

GEORGE ENGINE CO., INC.,
FRANK A. M. WILLIAMS,
Vice President.

HARVEY, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We wholeheartedly endorse and give our full support to the statement submitted by the Harvey Canal Industrial Association, Inc., of which this firm is a member.

We shall do all we possibly can, individually, to urge passage of bill S. 3867 because improvement of the waterway is urgently needed now.

Sincerely,

AYERS MARINE SERVICE, INC.,
R. J. MCGINITY, *Vice President.*

HARVEY, LA., *June 28, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We wholeheartedly endorse and give our full support to the statement submitted by the Harvey Canal Industrial Club, of which this firm is a member.

Moreover, we shall do all we possibly can individually to urge passage of bill S. 3867 because improvement of the waterway is urgently needed now.

Sincerely,

AYERS MATERIALS CO., INC.,
J. R. AYERS, JR., *President.*

NEW ORLEANS, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We wholeheartedly endorse and give our full support to the statement submitted by the Harvey Canal Industrial Club, of which this firm is a member.

We are a shipbuilder on the Mississippi River a short distance above Westwego. The proposed seaway will serve many of the oil companies, the barge and towboat people, and many other segments of industry in this vicinity. We strongly urge its favorable consideration.

Sincerely,

AVONDALE MARINE WAYS, INC.,
HENRY Z. CARTER,
Executive Vice President.

HARVEY, LA., *June 28, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We extend our full support and earnest endorsement to the proposal submitted by the Harvey Canal Industrial Association, Inc., of which this firm is a member.

We shall also do all we possibly can, as an individual, to promote passage of bill S. 3867, as this improvement to the waterway is urgently needed.

Sincerely,

J. RAY MCDERMOTT & CO., INC.,
ROGER W. WILSON,
Executive Vice President.

HARVEY, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We wish to extend our support as an individual business concern for the waterway between Barataria Bay and the Gulf of Mexico, as proposed by the Harvey Canal Industrial Association, Inc.

We urge you to give your full support to bill S. 3869 for the benefit of Louisiana, its oil and fish industries and the citizens of the State.

Sincerely yours,

H. B. "BUSTER" HUGHES.
C. RAY THOMASSIE.

HARVEY, LA., *June 29, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: We would appreciate your support to promote passage of bill S. 3867, covering the proposal submitted by the Harvey Canal Industrial Association, Inc., for improvement to waterway from Barataria Bay to Gulf of Mexico.

This improved waterway is greatly needed and necessary to the various industries. It is sincerely hoped that you will lend your needed support.

Sincerely,

MAYRONNE MUD & CHEMICAL CORP.,
J. J. O'NEIL, *General Manager.*

GRAND ISLE, LA., *June 30, 1956.*

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on
Rivers and Harbors and Flood Control, Washington, D. C.

DEAR SENATOR KERR: I am writing you in behalf of the people of the 11th ward of Jefferson Parish, La., which comprises the communities of Grand Isle and Cheniere Caminada.

We are vitally interested in Senate bill 3867 which will greatly improve navigation for all the people of this area. This bill was introduced by Senator Russell Long for himself and Senator Ellender, and both men know the country very well.

The fishing interests as well as the oil and sulfur interests need this channel improvement very, very much. We will greatly appreciate it if you will lend your support to appropriating the necessary funds for this development.

My position is that of police juror for this ward. In Louisiana, our parish system of government is administered by the police jury system, which is similar to the county council system or county representative system of other States.

Your very truly,

N. L. LUDWIG,
Juror, 11th Ward, Jefferson Parish.

BARATARIA BAY WATERWAY, LA.

(NOD report dated March 16, 1956)

Location.—Barataria Bay Waterway is located in the coastal marsh area of south Louisiana just west of the Mississippi River at New Orleans. It extends from the Gulf Intracoastal Waterway at mile 14.6 west of Harvey to the Gulf of Mexico at Grand Isle, La.

Report authorized by.—Flood Control Act of December 22, 1944 and River and Harbor Act of March 2, 1945 (all streams and bayous lying between the EABPL and the Mississippi River).

Existing project.—Provides for a 5- by 50-foot waterway from the Gulf Intracoastal Waterway to Grand Isle, La. The project was completed in 1925.

Plan of recommended improvement—Provides for a 12- by 125-foot project with the south half being realined to lower estimated maintenance costs.

Estimated cost

NOD report (Mar. 16, 1956):	
Federal	$1,697,000
Non-Federal	242,000
Total	1,939,000

Local cooperation.—Furnish lands, easements, and rights-of-way necessary for construction and subsequent maintenance; accomplish and maintain all alterations in pipelines, cables, and other facilities; and hold and save the United States free from damages.

Project economics

	NOD report Mar. 16, 1956	Current
Annual charges	$153,000	$153,000
Annual benefits:		
Transportation savings	610,000	610,000
Harbor of refuge	5,000	5,000
Maintenance on existing project	2,000	2,000
Total	617,000	617,000
Benefit-cost ratio	4.0	4.0

Comments of the Bureau of the Budget.—Since the report was submitted March 16, 1956, and forwarded by lower Mississippi Valley Division on April 9, 1956, it has not reached the Bureau of the Budget and there are no comments at this time.

UNITED STATES SENATE,
Washington, D. C., June 11, 1956.

Hon. DENNIS CHAVEZ,
United States Senate, Washington, D. C.

DEAR SENATOR CHAVEZ: It will be appreciated if you can arrange to hear S. 3867 in connection with the 1956 public works omnibus bill. This measure would provide for the improvement of the waterway between Barataria Bay, La., and the Gulf of Mexico.

The following syllabus on the Barataria Bay Waterway, La., project is presented for your information:

Purpose: To provide an enlarged navigation channel between the Gulf of Mexico and the Gulf Intracoastal Waterway.

Location: Starting at the intersection of the Intracoastal Canal and Bayou Barataria, following the route of the existing project to mile 15.5 in Bayou St. Denis, thence by a new channel through the chain of islands along the west side of Barataria Bay to intercept the existing channel to Barataria Pass and through the excavated pass channel to the 12-foot depth contour in the Gulf of Mexico. A lateral extension will extend from Barataria Pass to Bayou Rigaud to the vicinity of the United States Coast Guard dock.

Present project: Adopted by Rivers and Harbors Act of March 2, 1919 which provided for a 5- by 50-foot channel from Bayou Villars to Grand Isle, a distance of 37 miles.

Proposed project: A 12- by 125-foot channel.

Survey: Authorized by section 11 of the Flood Control Act of December 22, 1955; section 6 of the Rivers and Harbors Act of March 2, 1945; resolution adopted September 25, 1945, by the Committee on Rivers and Harbors of the House of Representatives.

Public hearing: August 2, 1949, at Westwego, La.

Recommendation: Favorable.

First costs: Federal, $1,697,000; local, $242,000.

Maintenance: Federal, $80,000 annually.

Local participation: (*a*) Provide without cost to the United States, all lands, easements and rights-of-way necessary for the relocation, enlargement, and extension of the project and for subsequent improvements when and as required.

(*b*) Accomplish and maintain without cost to the United States all alterations to pipelines, cables, and any other facilities, necessary for consideration of the project.

Need for project: To provide a straighter, shorter, and less hazardous route for the increasing amounts of traffic operating between the Intracoastal Waterway and the Gulf of Mexico.

Sincerely,

ALLEN J. ELLENDER.
RUSSELL B. LONG.

STATEMENT OF SENATOR ALLEN J. ELLENDER

Mr. Chairman and members of the committee, I want to thank you for permitting me to make this statement. I realize that your time is extremely limited, and that you have a number of extremely meritorious projects to consider.

I appear today in support of the proposed Barataria Waterway, a project which is vitally needed in Louisiana, and which will have a substantial and, of course, favorable impact upon the constantly increasing flow of water commerce throughout the entire Mississippi Basin.

The proposal involves a modification of an existing project for the Barataria Bay Waterway. The channel we are asking this committee to recommend would join the Intracoastal Canal and the Gulf of Mexico. It would offer a much-needed new route for the vastly increased commerce which oil development of the submerged lands areas, the important seafood industry of my State, plus the phenomenal economic growth of South Louisiana, have generated in the past decade.

The waterway would be 12 feet in depth, by 125 feet, and would extend from the Gulf Intracoastal Waterway near Lafitte, La., to the Gulf of Mexico near Grand Isle, following the route of an existing project to mile 15.5 in Bayou St. Denis, thence by a new channel through the chain of islands along the west side of Barataria Bay to intercept the existing channel at a point about six-tenths of a mile northwest of Barataria Bay Lighthouse. From this point it would proceed through the excavated pass channel to the 12-foot contour of the Gulf of Mexico.

The estimated Federal cost of this work is $1,697,000, plus $80,000 per year maintenance; contributions by local interests are estimated at $242,000.

Unfortunately, the House of Representatives Committee on Public Works was unable to consider this particular project when it had the bill now before you understudy, since a project report had not been rendered by the Chief of Engineers. This report has now been submitted by the Chief of Engineers, approved by the Board for Rivers and Harbors, and the project is ripe for authorization.

As this committee is well aware, the approval by Congress of the Submerged Lands Act and the Continental Shelf Act in 1953 broke what had amounted to a lengthy period of semistalemate in the development of offshore petroleum resources of the Gulf of Mexico. Since that time this development has proceeded at a phenomenal rate. Huge installations, including residences, commercial establishments, and equipment stockpiles, which support the offshore drilling rigs, have been erected on Grand Isle, which is a large operating center for the drilling operations conducted off the coast of Louisiana. Grand Isle, Golden Meadow, and the other communities located in this general area, have grown tremendously. Unfortunately, the transportation arteries which serve these areas have not kept

pace with the vastly increased demand for their use. At present, barges and other vessels seeking to enter the Mississippi River or the Intracoastal Canal from the Gulf of Mexico must use 1 or 3 existing routes. They can proceed by a roundabout route eastward from Grand Isle, into Southwest Pass, and up the main stem of the Mississippi River; they can move westward and enter the Intracoastal Canal at Morgan City, or proceed even further to the west and enter the inland waterway system through Calcasieu Pass in the vicinity of Lake Charles.

This dearth of adequate water transportation directly from the Grand Isle area to the Intracoastal Waterway and the Mississippi River imposes a tremendous drain upon the resources of both firms and individuals engaged in offshore drilling operations. It works a hardship upon the important seafood industry of Louisiana, an industry which, I am proud to say, provides top-quality shrimp, fish, and oysters for the foodstores and restaurants of the entire United States.

At present the existing channel in this general vicinity is maintained at about 4½ feet. It is entirely inadequate for the demands which it must serve. In the great majority of cases it is, as I have noted earlier, absolutely useless. This proposed project would eliminate this bottleneck by opening a utilitarian channel from the gulf to the Intracoastal Waterway. It would actually provide a channel directly into the Mississippi River, since it would tie in with a presently authorized project—one for which construction funds were appropriated this year—which links Lafitte, the northern terminus of the Barataria Waterway, and the Mississippi River. I refer to the Bayou Segnette Waterway.

The Corps of Engineers survey has estimated that the benefit-cost ratio on this project is 2.1 to 1, which, of course, meets the requirements for congressional consideration. I feel certain that, based upon our experience with other segments of the Intracoastal Waterway, this estimate will prove to be extremely conservative.

As I recall testimony earlier this year before the Public Works Subcommittee of the Senate Appropriations Committee, the original estimate of ultimate tonnage per year on the upper section of the Gulf-Intracoastal Waterway system was approximately 400,000 tons. Last year, a total of 16 million tons was carried on this section. I feel sure that within a very short time a similar proportional increase will be noted in the use of the Barataria Channel, if authorized and constructed.

I urge the committee to include this project in the omnibus bill now under consideration. It is a vital one, a project which is urgently needed if the truly fantastic economic growth of southern Louisiana's coastal areas is to be adequately served.

Thank you for permitting me to make this statement.

Senator LONG. The Congress also authorized the Bayou Segnette, which goes from the Westwego area down to where the Barataria Waterway comes.

We hope that work can be done this year on the Barataria Waterway, deepen it to a 12-foot depth so it could be used effectively. The cost is small compared to the large amount of profit involved, and I would very much recommend this project to the committee.

There are other witnesses that I hope the chairman will find time to hear on this matter, and I would like to ask that the committee accelerate a bill that is before you, which has already been before the House committee, and that is a bill for control of water hyacinths.

In the State of Louisiana the water hyacinth is estimated to create a damage of $38 million annually, and there are several other States that have some damage. The damage is estimated to be as high as $5 million in the neighboring States of Florida, Alabama, Georgia, and Mississippi.

Rather than just trying to keep the water hyacinths where they clog up the waterways and prevent barge traffic from getting through, it is proposed to go upstream where these hyacinths are blooming and

floating on down and kill them upstream so that we might progressively eradicate the water hyacinths. It is hoped that in about 5 years this problem could be brought completely under control.

Senator KERR. The authorization in the bill as provided by the House committee would be for $1,350,000 a year, of which 75 percent, presently estimated at $1,012,500, should be borne by the United States and 25 percent, presently estimated at $337,500, by local interests?

Senator LONG. That is correct.

Senator KERR. It is your position that just killing the growth of this plant in the waterways of North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas does not do the job of eliminating it, and the proposal would be to direct the Corps of Engineers to attack it at its source?

Senator LONG. Yes. Just to give you a simple example: This map indicates where the Intercoastal Waterway crosses the State of Louisiana. With marsh areas and lakes all through that area, the Army engineers proceeded to try and destroy the hyacinths so traffic could go through the waterway. In trying to kill them, more simply float down and we are right where we start out from.

We propose to have additional funds, to be matched by the States, and go upstream and kill them upstream and get rid of the problem. At a cost of $1,350,000 we believe in a few years we could eliminate the water hyacinths as a hazard to navigation and also prevent the damage that it is doing to fish and wildlife. Otherwise in the long run it will cost a lot more to try to keep the waterways open at a cost of $300,000 a year that the Federal Government is spending at the present time.

The Senator will note that the States will match this with 25 percent contributions.

(The statement by Senator Long is as follows:)

STATEMENT OF SENATOR RUSSELL B. LONG

As author of S. 3392, a bill for the eradication of obnoxious aquatic plant growths from navigable waters, I am testifying in favor of H. R. 9001 introduced by Congressmen Willis and Thompson, and passed by the House of Representatives.

For more than 50 years, the State of Louisiana has been faced with a problem caused by the overgrowth of the water hyacinth. In recent years, the hyacinth has been joined by the alligator weed and the growths have spread to seven neighboring States.

The presence of hyacinths and other growths in the waterways has resulted in obstruction to navigation, as well as harmful effects to drainage, agriculture, fish and plant life. For many years the Corps of Engineers has been expending large sums of money each year in an effort to maintain navigation in the infected streams. Since the Government was authorized to operate only in navigable streams, up to now the fight has been merely a struggle to hold even against the encroachment of these growths. No real progress could be made until the Government was authorized to go after the plants wherever they grow.

In Louisiana alone, water hyacinths have been causing an annual damage of almost $38 million. The figure has gone as high as $5 million in the neighboring States of Florida, Alabama, Georgia, and Mississippi. It is just a matter of time until the damage area spreads and the damage figure rises. At the present time the Corps of Engineers is spending in excess of $300,000 annually in an attempt to keep ahead of the plants.

It is proposed to spend $1,350,000 annually for a period of 5 years to eradicate the marine growths. These funds would be supplemented by local funds to the extent of 25 percent of the amount supplied by the Federal Government and the regular annual Federal maintenance funds. The funds would be administered

by the Corps of Engineers, who would use both chemical and mechanical means to acheieve the desired results.

Approval of the House-passed measure to achieve this needed relief is strongly urged.

Senator LONG. Mr. Chairman, we also wish to urge consideration of a measure which was referred to the Committee on Health and Welfare. It should be before this committee. I discussed it with Senator Hill, the chairman of that committee, and he said he has no objection whatever to this committee considering this measure and putting it in the bill. That would be Federal funds to assist with the control of the salt marsh mosquito.

Here is what happened in Louisiana. The Federal Government helped us and made it possible to greatly develop the southern area of the State by constructing the Intercoastal Waterway and by deepening the outlet channels from Lake Charles, New Orleans, and various other points. In addition to that the Federal Government built certain control structures to prevent the salt water from backing up into the ricefields and destroying the rice crop. That has very much added to the economy of that entire area. It has resulted in tremendous benefits.

But in connection with that it has created a very serious problem with regard to mosquitoes because there is a tendency of the salt water to back into these deeper channels and mix with fresh water which makes an ideal breeding ground for what is known as the salt marsh mosquito. If the Senator has had some experience with the salt marsh mosquito he will find that they are about the hardest biting mosquito and the largest, and they breed profusely.

We believe with an expenditure of approximately $250,000, to be matched by State contribution of $65,000, that it would be possible to do a certain amount of dredging and a certain amount of extermination with chemicals, and improve this project to the extent that we could control the salt marsh mosquito in the areas where we have the greatest difficulty, which is the southwest portion of Louisiana.

The State has already appropriated its money in the hope that the Federal Government would be willing to match the State contribution and bring this problem under control.

Senator KERR. Off the record.

(Discussion off the record.)

(The statements of Senators Long and Ellender follow:)

STATEMENT OF SENATOR ALLEN J. ELLENDER

Mr. Chairman and members of the committee, I wish to join my colleague, Senator Long, in urging this committee to include in the omnibus public-works bill now before you a proposal to authorize a project directed at the control and ultimate eradication of the salt marsh and other mosquitoes.

As Senator Long has pointed out in his statement, the problem of salt-water mosquitoes is becoming of increasing severity in the temperate areas of our Nation which border upon the sea, particularly in the Gulf, Atlantic and Pacific States. It is an unfortunate fact that as these areas have developed their water transportation arteries particularly those which tie in with salt water, the mosquito problem has increased proportionately. Only recently, the city of New Orleans suffered an infestation of mosquitoes which greatly hampered the commerce and everyday life of this metropolis.

Other areas of Louisiana have endured similar periodic plagues.

The amendment proposed would authorize the expenditure of $250,000 per year over a period of 3 years to undertake a program of control and eradica-

tion of the salt-water mosquito and similar pests. Local interests would be required to contribute 25 percent of this amount; the State of Louisiana has indicated its willingness to join in such a program, and I feel sure that other areas would display the same reaction.

I realize that it is perhaps impossible for some members of this committee to realize the impact which the mosquito has upon the life of southern Louisiana, and similar areas. Having lived in that part of the State for all my life, I can testify to the fact that when mosquitoes swarm in from the marshes, it is almost impossible to transact even routine business. Fortunately, these infestations have occurred only on rare occasions in the past, but as the waterways of these growing areas develop, as the progressive sinking of the vegetation upon which our marshlands rests continues, I fear that the problem will become even more severe, rather than better.

I urge the committee to approve this request, and to include this item in the bill. I can assure the committee that it will be money well spent.

STATEMENT OF SENATOR RUSSELL B. LONG OF LOUISIANA

It is requested that this committee accept an amendment to the omnibus bill now under consideration and include in this measure S. 3943 to authorize a comprehensive project for control and progressive eradication of the salt marsh and other injurious mosquitoes.

This bill was previously referred to the Committee on Labor and Public Welfare as it was considered that it was a health measure. However, the purpose of the bill is to eliminate the salt marsh mosquito that has become so prevalent in coastal areas largely because of man-made works that have caused a certain amount of salt water intrusion. Because of this connection between public works and the prevalence of the pest, it is my belief that the bill more logically belongs in the Public Works Committee and, after discussing the matter with the chairman of the Labor and Public Welfare Committee, he has advised me that he would have no objection to its transfer to your body.

In recent years, the salt marsh mosquito has become more and more of a menace, particularly to the people in south and southwest Louisiana. The same problem, however, is shared by many other parts of the United States, particularly in the areas along the Atlantic, Gulf, and Pacific Coasts. The increase in the numbers of mosquitoes, which are more than a nuisance, has some direct connection with our public works program, since these works have tended to create brackish pools that serve as a breeding place for these pests..

It is my belief that a study of the condition will reveal something can be done through the use of mechanical or chemical means, or both, to dissipate these breeding places and to eliminate the problem to a large extent.

The conditions I describe are not new, but their occurrence is more frequent and is taking on greater importance with the economic development of the resources of our Nation. The coastal marshes of Louisiana are built upon a foundation of vegetation which has been progressively sinking for many years, bringing about higher water levels and intrusion of salt water in the marsh areas favorable to mosquito production. The deepening and widening of existing water channels and construction of new channels for navigation to the Gulf of Mexico and through the Intracoastal Waterway has admitted more salt water into the marsh area. Guard locks installed to prevent salt water from entering the canals from which many farmers derive their fresh water supply undoubtedly have caused a major increase in the extent to which salt water overflows the marshes.

The intermixture of fresh and salt water, resulting from the works described and the changes in water levels throughout the marshes along the coast, have created an abundant breeding area for mosquitoes.

It is proposed to expend the sum of $250,000 annually for a period of 3 years to conduct a program of control and progressive eradication of these mosquitoes. Local interests would contribute 25 percent of this amount and the legislature of the State of Louisiana has appropriated the State share of the funds in the hope that the Federal contribution will be forthcoming.

The project as proposed would be administered by the Chief of Engineers under the direction of the Secretary of the Army, in cooperation with other Federal agencies and with the State agencies concerned with public works and health control measures.

The bill would select a project area between the Calcasieu and Mermentau Rivers, or some similar adjacent area, and currently with the necessary long-range planning and research, initiate a program that would give quickest relief from this growing menace.

We strongly recommend that this measure be included in the omnibus bill under consideration by your committee, in order that this problem can be attacked at the earliest possible date. My colleague, Senator Allen J. Ellender, joins me in this request.

[S. 3943, 84th Cong., 2d sess.]

A BILL Authorizing a comprehensive project for control and progressive eradication of salt-marsh and other injurious mosquitoes in the coastal area of southwest Louisiana

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized a comprehensive project to provide for control and progressive eradication of the salt-marsh and other injurious mosquitoes in the coastal area of Louisiana, particularly between the Calcasieu and Mermentau Rivers, in the interest of the health of humans and animals, including continued research for the development of the most effective and economic control measures and investigation of the relationship of the mosquito infestation to works constructed by the Corps of Engineers for flood control and navigation. The project shall be administered by the Chief of Engineers, under the direction of the Secretary of the Army in cooperation with other Federal and State agencies at an estimated Federal cost of $250,000 annually for three years; provided that local interests contribute in work or cash the equivalent of 25 per centum of the annual Federal appropriation for such project.

SEC. 2. The Chief of Engineers shall, in cooperation with the appropriate State and local agencies, select a project area between the Calcasieu and Mermentau Rivers, or some similar adjacent area, and concurrently with the necessary long-range planning and research, immediately apply, in the area selected, such biological, chemical, and mechanical methods or modifications thereof for control of mosquitoes as have already been developed by the Corps of Engineers and used with success in connection with reservoirs in upland areas.

SEC. 3. There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

CONTROL AND ERADICATION OF MOSQUITOES IN SOUTHWEST LOUISIANA

Mr. LONG. Mr. President, I introduce, for appropriate reference, a bill authorizing a comprehensive project for control and progressive eradication of salt marsh and other injurious mosquitoes in the coastal area of southwest Louisiana. I ask unanimous consent that a statement, prepared by me, relating to the bill, may be printed in the Record.

Mhe PRESIDENT pro tempore. The bill will be received and appropriately referred; and, without objection, the statement will be printed in the Record.

The bill (S. 3943) authorizing a comprehensive project for control and progressive eradication of salt marsh and other injurious mosquitoes in the coastal area of southwest Louisiana, introduced by Mr. Long, was received, read twice by its title, and referred to the Committee on Labor and Public Welfare.

The statement presented by Mr. Long is as follows:

"STATEMENT BY SENATOR LONG

"1. Anyone familiar with the Mississippi Delta and gulf coast of Louisiana has felt the sting of salt marsh and floodwater mosquitoes blown inland from breeding marshes and knows about their power of flight and ability to be carried by wind for many miles as well as their viciousness and the effect of their attacks. The great swarms that arise from the marshes following storms and lesser ecological disturbances that create conditions favorable to mosquito breeding, forming clouds of destruction wafted inland to add to an already dense mosquito population, are intolerable for man and beast alike in an area of economic importance.

"2. These conditions are not new but their occurrence is more frequent and is taking on greater importance with the economic development of the resources of the region, some of which contribute substantially to the conditions and call for exploration of remedial measures. The coastal marshes of Louisiana are built upon a foundation of vegetation which has been progressively sinking for many years bringing about higher water levels and intrusion of salt water in the marsh areas favorable to mosquito production. Salt water brought to the surface by oil and mineral development has changed some fresh water areas to a saline condition. The deepening and widening of existing water channels and construction of new channels for navigation to the Gulf of Mexico and through the Intracoastal Waterway has admitted more salt water into the marsh area. Guard locks installed to prevent salt water from entering the canals from which many farmers derive their fresh-water supply undoubtedly have caused a major increase in the extent to which salt water overflows the marshes. The resulting intermixture of fresh and salt water and changes in water levels throughout the extensive marshes along the coast create an abundant breeding area for mosquitoes. Livestock production, recreational development, and human occupation in the vicinity are seriously affected to the point that full development of the resources of the region will require the necessary investigations to determine the factors that make up the potential of the marshes for mosquito production, the means whereby mosquito production may be controlled, and development of an operational program that will provide the necessary relief from mosquito infestation that now impedes full development and use of the resources of the coastal area.

"3. It is recognized that the control of mosquitoes is primarily a responsibility of the State and local interests. However, now that the Federal Government has expended millions of dollars in development of the water resources of the coastal area of Louisiana for navigation, flood control, water supply, salt-water regulation, and agricultural, industrial, and recreational uses, it is equitable that the Federal Government cooperate with the State of Louisiana in providing funds for survey of the situation that has developed concurrently with these improvements, research in development of control methods, and experimentation in control practices to realize the full benefits of the improvements that have been made.

"4. The Corps of Engineers, as the Federal agency primarily concerned with the problem, is well prepared to conduct the necessary engineering and operational investigations and the experimental and demonstration activities and to direct the exploration of the technical problems associated with mosquito production in the areas affected by Federal water-control projects and to undertake development of adequate mosquito control measures in cooperation with the State of Louisiana and other interested Federal agencies. Millions of dollars of Federal funds have been expended in a similar manner through the Corps of Engineers for the same general purpose with outstanding success for development of mosquito control in connection with reservoirs in upland areas under jurisdiction of the corps. Improvements brought about by these endeavors have resulted in establishing satisfactory controls and reduction in costs for management of reservoirs throughout the principal mosquito breeding areas of the United States. Extension of the same type activity to the coastal area of Louisiana in the vicinity of Federal water-control structures will serve an equally urgent need and results obtained will be equally applicable to many other coastal areas of the same type in other States. It is anticipated that joint endeavors may substantially improve and reduce the cost of the continuing program of the State of Louisiana for mosquito control in the coastal areas.

"5. It is proposed that, subject to further planning by the Corps of Engineers and the State of Louisiana, a project area be selected in the coastal marshes of Louisiana between the Calcasieu and Mermentau Rivers, or some equally suitable area; for study, experimentation, and demonstration; for control of salt marsh and other injurious mosquitoes, including comprehensive investigation of environmental factors and conditions favorable to mosquito production and all possible biological, chemical, mechanical, or other methods that may be economically practiced and demonstrated successful for control of mosquitoes.

"6. In order to accomplish the above purposes, it is proposed that Federal funds in the amount of $250,000 per year be appropriated for a period of 3 years for the Corps of Engineers to be expended under the direction of the Secretary of the Army and the supervision of the Chief of Engineers, subject to concurrence and cooperation of the State of Louisiana through its agency or agencies responsible for mosquito control activities."

Senator LONG. Will the committee be able to hear the other witnesses?

Senator KERR. We will hear the other witnesses.

Senator LONG. Thank you, Mr. Chairman, and the other members of the committee.

Senator HRUSKA. We will proceed to a further presentation of the Barataria Waterway project. Congressman Boggs, we will hear you at this time.

STATEMENT OF HON. HALE BOGGS, A REPRESENTATIVE IN THE CONGRESS FROM THE SECOND DISTRICT OF THE STATE OF LOUISIANA

Mr. BOGGS. Thank you. I shall only take a moment to reiterate the statement made a few moments ago by Senator Long. This project is desperately needed, principally to carry out the offshore operations in which the Federal Government has a stake and interest. The project has a high economic ratio of 4 to 1. The cost is relatively small. The savings in time and money are very large. The existing cut through the area which you see on the map is grossly inadequate. This project is authorized to be completed in a relatively short time, and it will save tremendous transportation costs from New Orleans through the entire Coastal Canal to Morgan City and back to the area which you see at the termination of the dotted line.

Mr. Chairman we have some witnesses here. Mr. Nat Knight, Jr., a member of the public service commission in Louisiana, also a banker and attorney, and chairman of one of the waterway commissions in Jefferson Parish, La., in which this project is located. We also have Mr. Carter who is executive vice president of one of our largest shipbuilding firms. Mr. Ayers, president of the Ayers Materials Co., which is located on the Harvey Canal. And Mr. Myers, representing the Department of Public Works of the State of Louisiana, and Mr. Gormin, vice president of the Bauerlein in New Orleans.

I don't think Mr. Thompson came in. I had him listed. He is very interested as president of the American Waterways Assocation.

Senator HRUSKA. Shall we hear from those witnesses at this time?

Mr. BOGGS. Yes.

Senator HRUSKA. Will you call on them in the order in which you desire, and we will hear them in that order.

Mr. Knight has to catch a plane and return to New Orleans. I will call on him first. I might say that all of these gentlemen are going to make very brief statements.

STATEMENT OF NAT B. KNIGHT, JR., MEMBER OF THE LOUISIANA PUBLIC SERVICE COMMISSION

Mr. KNIGHT. Mr. Chairman, my statement, although brief, has been covered in part by some of the prior statements and I am going to omit that part and avoid duplication.

My name is Nat B. Knight, Jr. I am a lifelong resident of the parish of Jefferson. As chairman of the board of the Guaranty Bank & Trust Co., of Gretna, Jefferson Parish, and as the member of the Louisiana Public Service Commission from this district since 1940, I

am acquainted with the areas traversed and served by the proposed waterway.

The Gulf of Mexico is a considerable distance from New Orleans via the Mississippi River. From New Orleans to Head of Passes is 100 miles, and from that point to Southwest Pass an additional 20 miles, or by way of South Pass 13½ miles. Off the shores of the Grand Isle area and within the large shallow salt-water lake of Barataria Bay lie oil and gas fields of tremendous potential. That is also true in the large shallow area of Barataria Bay indicated on the map. The proposed waterway and the existing intracoastal waterway together reduce the distance to the Gulf of Mexico to about 50 miles from New Orleans. Existing locks at Harvey Canal make possible entrance into the Mississippi River from the Intracoastal Waterway. A water route so much shorter, leading directly to the enormously rich offshore oil deposits while tapping inland oilfields en route is obviously of utmost importance.

In common with other large shallow bodies of water, Barataria Bay is treacherous and dangerous; wave action results quickly from advance winds. During the winter it is not uncommon for a north wind of some duration to depress its water surface by as much as 3 feet. At present the controlling depth is 4½ feet and the controlling width in Dupre Cutoff is 30 feet at the bottom. Modern barges draw 8½ feet. Later model shrimp trawlers, which operate in this region, draw 8 feet, while heavy equipment for the offshore oilfields draws between 9 and 10 feet. Hurricanes occur in the general vicinity about once in every 7 years.

Despite the restrictions on navigation imposed by the existing inadequate channel and attendant difficulties, the need for waterborne traffic has been so great that the annual tonnage increased from 127,280 tons in 1944, to 694,695 tons in 1954. The Corps of Engineers has outlined accurately the scope of the project. Your attention is respectfully directed to the variety and number of operations benefited by the proposed improvements, operations both of a local and national interest, including shrimping, the planting and gathering of oysters, the transportation of crude oil, heavy equipment, pipe, drilling mud, and other mineral production supplies, sulfur barges and other equipment concerned in the production, gathering, and transportation of oil, gas, sulfur, and other minerals, all of vital concern to the national economy and national defense. All this traffic will be fed from and into the existing Intracoastal Waterway as well as through the project for Bayou Segnette leading into the heart of the city of Westwego.

As compared with the inestimable benefits flowing from the proposed waterway, there are no disadvantages, no opposition, no interest or parties who will be injured by the proposal. Measured in this day of fantastic expenditures, the cost of these tremendous benefits is moderate—$1,697,000 for the Federal Government and $242,000 for local interests, and the benefit-cost ratio of 4 to 1 is extremely favorable. The cost is moderate based on today's prices.

The need for favorable action is increased with each passing day. Traffic is growing at an accelerated pace, and with the removal of the legal difficulties which exist there just isn't any computing how greatly they will develop in a short time. As a matter of interest, passing tows have to pull over and run aground while opposing traffic passes.

We don't know of any peacetime project, certainly in our area, that offers more in genuine and lasting benefits for so small an expenditure. We respectfully request that this project be included in the pending omnibus bill so that construction might be begun at an early date.

Senator HRUSKA. Thank you, Mr. Knight.

Mr. BOGGS. I will call next Mr. Henry Carter, executive vice president of Avondale Marine Ways.

(No response.)

Mr. BOGGS. I will call Captain Ayers.

STATEMENT OF J. R. AYERS, JR., PRESIDENT OF AYERS MARINE SERVICE, INC.

Mr. AYERS. Mr. Chairman, I am James R. Ayers, Jr. My place of business is Harvey. I desire to make the following statement regarding the bill, S. 3867.

During the years 1946 through 1953, when we were engaged in offshore towing operations, we were very active in moving barges, derricks, construction equipment, and steel from the New Orleans area to offshore oil-drilling operations along the gulf coast from the Mississippi River to Freeport, Tex., but primarily in the vicinity of Grand Isle, La.

During these operations it was necessary to schedule all of our tows out through the southwest pass of the Mississippi River, thence approximately 40 miles through outside unprotected waters to Grand Isle.

During our operations down there we were subjected to numerous delays caused by rough weather and fog, whereby we would be compelled to tie up just inside the mouth of the river for periods from several hours to 3 or 4 days at a time. Or in the case of being caught off shore near Grand Isle in heavy weather, our boats and crews would be forced to lay at anchor or try to head up to the weather with no protection, awaiting the opportunity to make a dash for the mouth of the river a great distance off, endangering lives and equipment, when if there had been a channel as proposed in bill S. 3867, this would not have been necessary.

Aside from the hazards of outside water and getting across the bar at the entrance to the river, there still remains approximately 123 miles of swift current, many bends, seagoing ships, and at times logs and driftwood that present a real hazard to all crews and vessels. This condition would be greatly relieved by an improved waterway from the Gulf of Mexico such as provided for in bill S. 3867.

At the present time the Ayers Materials Co., Inc., of which I am also president, attempts to use the inland route to deliver by barge clam shell for mats setting up oil-drilling rigs.

We are having serious trouble and delays in our operations due to existing shallow channel with many obstacles to navigation.

There is great and urgent need of improvement to this waterway. Therefore, we urge favorable consideration and hope for passage of bill S. 3867 during this session of Congress.

Mr. Chairman, I know we are running short of time, but we are having a little problem down there. This past week our vessels—we had a tow of barges delayed some 3 days trying to get to Grand Isle, some 55 miles from New Orleans, due to this low water.

Senator HRUSKA. Thank you, Mr. Ayers, for your statement.

Mr. BOGGS. Mr. Chairman, may we call Mr. Lu Myers, chief engineer of the Department of Public Works, State of Louisiana?

Senator HRUSKA. Mr. Myers, will you step forward, please, and proceed in your own manner.

STATEMENT OF LU B. MYERS, CHIEF ENGINEER, DEPARTMENT OF PUBLIC WORKS, STATE OF LOUISIANA

Mr. MYERS. Mr. Chairman and members of the committee, I am Lu Myers, chief engineer of the Louisiana Department of Public Works. We have prepared a brief in support of this project which I would like to file and ask that it be made a part of the record.

Senator HRUSKA. It will be received.

(The brief referred to above follows:)

STATEMENT IN SUPPORT OF AUTHORIZATION FOR NAVIGATION IMPROVEMENTS BARATARIA WATERWAY, IN LOUISIANA

By the State of Louisiana Department of Public Works, Calvin T. Watts, Director

FOREWORD

Navigation is of utmost importance to Louisiana because of its geographical location, its topography, and the fact that the bulk of its mineral resources are found in the water bottoms and marshes which extend along the coast of the Gulf of Mexico. Louisiana is situated at the hub of the most extensive inland waterway system in the world, where the 6,903 miles of the Gulf Intracoastal and Warrior-Tombigbee systems and the 12,351 miles of the Mississippi River system link the resources of the gulf coats with the industrial centers of northern, midwestern, and eastern United States. Among Louisiana's greatest assets are the 7,500 miles of navigable waterways which lie within its borders, for the majority of these streams traverse the marshes and lowlands where most of the State's mineral wealth is found, and provide the most practical means of developing the resources of an otherwise inaccessible area.

The department of public works is the planning agency of the State government and has the responsibility of formulating plans for proper development of the resources of the State. One of its most important duties is the improvement and extension of Louisiana's inland waterway system. In fulfilling this duty, the department maintains close liaison with the Corps of Engineers who are engaged in similar work in the area. Through the medium of this brief the department of public works seeks to obtain congressional authorization for construction of the Barataria Bay Waterway, La.

BARATARIA BAY WATERWAY, LOUISIANA

The Barataria Bay Waterway lies in the coastal marshes and bays of south Louisiana about midway between Bayou Lafourche and the Mississippi River. It was originally constructed for small commercial fishing boats, but now it has become of great importance to other interests, principally those engaged in the discovery and production of oil, gas, and sulfur in the marshes of the area and offshore in the Gulf of Mexico. As a result of these new activities, the present project dimensions of 5 feet deep on a bottom width of 50 feet have become obsolete and inadequate for the large vessels and maritime equipment which must be used to develop the mineral resources of the region.

The most important factors supporting improvement of this waterway are the tremendous increase in traffic, the greater range in sizes and types of vessels and marine equipment using it, and the prospects that the waterway will continue to increase in importance for many years to come.

Over the past 10 years commerce has increased from 190,000 tons to 695,000 tons annually, despite the fact that restrictions imposed by the shallow depths and narrow channel have caused great inconvenience and loss to navigators. Eighty-five percent of the traffic is directly related to the production of oil, gas, and sulfur, the balance consisting of shellfish, such as shrimp and oysters, and miscellaneous cargo.

The discovery and production of oil and gas fields and sulfur deposits served by the Barataria Bay Waterway, whether inland or offshore, are primarily marine operations. Drilling rigs are mounted on specially designed barges and towed through canals dredged to the well site, and hugh cranes and marine structures for offshore work are assembled and floated to location. Nearly one-half of the traffic over the waterway consists of crude petroleum which must be transported in barges to refineries.

The production and development of the mineral resources of this area, as in all of coastal Louisiana, are very expensive operations and the most efficient marine equipment must be employed, hence the trend to larger vessels and longer tows. Fishing boats are also larger, for a large portion of all shirmp taken annually now come from the open gulf, whereas in earlier days only the inland bays and lakes were fished. But the small dimensions of the waterway prohibit the efficient use of the necessary vessels and tows of more than one barge, causing great inconvenience and costly delay to all users of the channel.

The enormous natural resources of the tributary area assure that the Barataria Bay Waterway will have a long and useful life. This area embraces over 900,000 acres of producing and potential oil lands, including 400,000 acres lying offshore in the gulf. In 1955, crude-oil production on these lands and water-bottoms amounted to 12.5 million barrels. Since this is a new producing area, production of oil and gas will rise as existing fields are developed and new ones are discovered. Based on the records of the oldest south Louisiana oil fields, drilling and production will continue at a greater rate than at present for the next 50 years. Oil companies are leasing sites for a period of 50 years with option of renewal. A conservative estimate of the sulfur deposit in the Gulf of Mexico off Grand Isle at the southern end of the waterway indicates a life of 80 years if produced at a rate of 500,000 tons annually and 40 years if produced at 1 million tons annually. Although this deposit is not being worked now, production is mandatory under terms of the lease and the waterway, if improved, will afford great savings in mining and transporting the sulfur.

Several oil companies use Grand Isle as a base of operations for exploring and producing oil offshore in the gulf. The Humble Oil Co. is the largest operator in this area and has spent over $1.5 million in constructing docks, wharves, storage tanks, and living quarters for personnel on the island. This firm has also spent $220,000 in dredging the offshore bar and channel at the gulf entrance to the waterway. The department of public works is now enlarging the most restricted reaches of the channel to a depth of 9 feet over a bottom width of 100 feet at a cost of $150,368. The department of highways and the department of public works have also expended over $750,000 to combat beach erosion at Grand Isle and to further secure the island as a base of operations for offshore oil development.

The department of public works considers the Barataria Bay Waterway of great importance to the State of Louisiana and to the Nation. It is a vital link connecting the mineral resources and fisheries of the Gulf of Mexico with the refineries and markets served by the Intracoastal Waterway and the Mississippi River system. Enlargement of its channel to more adequate dimensions will enable the fishing, petroleum, and sulfur industries to continue their operations more efficiently and safely than is presently possible. We therefore urge Congress to authorize modification of the existing project to provide a channel 12 feet deep at mean low gulf level over a bottom width of 125 feet in accordance with the recommendations of the Chief of Engineers at an estimated cost of $1,697,000.

Mr. MYERS. I would like to give you three reasons why we think this project should be authorized. The area that this waterway serves, in addition to having offshore potential, is also rich in oil, sulfur, and seafoods. This waterway will connect this area with the inland waterway system of the entire country, and be an integral part of the waterway system in Louisiana.

Second, the resources of this area are ample to insure the economic and beneficial use of this project.

Third, this projct is so urgently needed that the local people have now under contract 10 miles of this canal for enlargement at a cost of $150,000. This project is jointly financed by the State, the local police jury, and the navigation interests.

I would like to file also as a part of the record the plans for this project which are now under construction.

Senator HRUSKA. Those will be received for the file.

(The documents referred to above were filed with the committee.)

Mr. BOGGS. Before calling the next witness I would like to get permission from Mr. Thompson, president of the American Waterways Operators and Mr. Carter vice president of the Avondale Marine Ways, to file their statements.

Senator HRUSKA. That must be agreeable. We must bear in mind the time limitation.

Mr. BOGGS. I would like for the record to show that bills now being considered are identical to H. R. 1770 which I introduced in the House in January 1955.

I will now call Mr. Gormin.

STATEMENT OF KEN GORMIN, VICE PRESIDENT OF BAUERLEIN, INC.

Mr. GORMIN. A number of statements and telegrams have been sent from communities, and associations, to Senator Kerr, Senator Chavez, and Senator Long. I would like to ask that they be entered in the record.

Senator HRUSKA. They will be accepted for the record.

Mr. GORMIN. The Intercoastal Canal Association of Louisiana and Texas, and the American Waterways Operators, headed by Mr. Chester Thompson, also favor this project. I have here some 20 statements and letters of support from the responsible civic associations, industries, and political leaders. I am not going to read them, but I ask permission to file them in the record.

Senator HRUSKA. That will be received and placed in the record.

(The letters referred to above follow:)

GRETNA, LA., *July 16, 1956.*

Senator DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate,

DEAR SENATOR: In behalf of the police jury of Jefferson Parish, the governing agency of the parish (county) I am writing to you in support of S. 3867, the bill which provides for the improvement of the waterway between Barataria Bay and the Gulf of Mexico.

The police jury has long recognized the need for deepening this waterway and strongly urges favorable consideration and authorization in this Congress.

We join with industrial, commercial and civic interests in seeking a 12-foot channel to alleviate the barge traffic in the area and permit the orderly development of resources vital to our Nation.

Sincerely,

J. J. HOLTGREVE,
President, Police Jury, Parish of Jefferson.

[New Orleans Chamber of Commerce News Bulletin, July 13, 1956]

BOARD URGES FAVORABLE VOTE ON BARATARIA BAY WATERWAY BILL

Benefits with a ratio of 4 to 1 over costs should be realized from the proposed improvement of the waterway between Barataria Bay and the Gulf of Mexico, N. L. Caruthers, chairman of the Waterways Development Committee told the board of directors at their latest meeting.

Basing his information on the survey of the proposed project by the United States Army Corp of Engineers, Mr. Caruthers pointed out that the benefit cost ratio of 4 to 1 as determined by the Corps of Engineers clearly reveals the economic justification for this project.

He told the board members that Senator Robert S. Kerr, chairman of the United States Senate Public Works Subcommittee on Flood Control and Rivers and Harbors, will shortly conduct hearings on S. 3867, a bill introduced by Senators Allen J. Ellender and Russel B. Long to provide for the improvement of "a waterway between Barataria Bay, Louisiana, and the Gulf of Mexico."

Asking that the members of the board urge Senator Kerr and his colleagues to vote favorably on this bill, Mr. Caruthers said that the narrow channel presently in existence, with a controlling depth of only four and a half feet, presents a hazard to navigation and a constant threat to the safety of personnel employed aboard floating equipment using this channel. Because this waterway is urgently needed by all of the industries involved with the development, servicing, and production of the offshore oil industry along the coast of Louisiana, he continued, the proposed improvement which would result in a channel 12 feet by 125 feet is of vital importance.

General P. A. Feringa, who is also a member of the committee, pointed out the location of the proposed project on a chart and told the members that this route provides a substantially shorter distance to the offshore developments than the Mississippi River, and that the channel was equally essential to the important oyster and shrimp industry of the area.

General Feringa then explained that the importance of the development of this waterway which joins the Intracoastal Waterway in the vicinity of Lafitte with arteries entering the Mississippi River at New Orleans, is further emphasized by the fact that it will also tie in with the Bayou Segnette Waterway development project extending from Lafitte to Westwego. The funds for the Bayou Segnette Waterway have already been made available by the Congress, he said.

The members of the board, after hearing from the two representatives of the committee, unanimously endorsed S. 3867, and directed that a letter be written to Senator Kerr and the members of his committee urging the favorable consideration of this measure, which they cited as providing a valuable link in the Gulf Intracoastal Waterway system.

COMMERCIAL TRANSPORT CORP.,
New Orleans, La., July 13, 1956.

Hon. ROBERT S. KERR,
Chairman, and Members of the Subcommittee on Flood Control and Rivers and Harbors, Senate Public Works Committee,
United States Senate, Washington, D. C.

DEAR SENATOR KERR: This refers to S. 3867, a bill to provide for the improvement of the waterway between Barataria Bay, La., and the Gulf of Mexico.

The present waterway is inadequate even for the most limited type of equipment. The existing channel has a controlling depth of only 4½ feet, and because the waterway will not accommodate the most modern and economic-type equipment, a great number of carriers operating the size vessels such as owned by our company have not been able to extend our operations to this waterway.

The rapidly expanding operations of the oil industry in the marshland and offshore areas involved makes it vitally important that an adequate channel be provided to service such operations. The proposed improvements would meet the requirements. It would provide a substantially shorter and safer route than via the Mississippi River.

The United States Army Corps of Engineers' survey of this proposed project indicates a benefit-cost ratio of a little better than 4 to 1 which clearly reveals the economic justification for the project.

The needs for this enlarged channel are increasing daily, and we respectfully urge the favorable action of your committee.

Respectfully yours,

N. L. CARUTHERS,
Assistant to the President.

CRESCENT TOWING & SALVAGE CO., INC.,
New Orleans, La., July 12, 1956.

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: It has come to my attention that bill S. 3867, providing for the improvement of the waterway between Barataria Bay, La., and the Gulf of Mexico, by Senators Allen J. Ellender and Russell B. Long, will come to the attention of your committee. I wish to respectfully request that you and your colleagues vote in favor of this bill.

We service the offshore oil industry along the coast of Louisiana, which is engaged in the production of gas and oil, and urgently require a channel that is safe for our personnel and equipment. You can appreciate the equipment involved is specialized and represents heavy capital investment to this company and others. We understand that the United States Army Corps of Engineers has made a survey of this proposed project, which indicates that it is warranted and necessary.

The urgent needs for this enlarged channel are multiplying, and we urge that your committee act favorably so that the project can be included in the omnibus bill and construction started in 1957.

Sincerely yours,

WILLIAM S. SMITH,
Vice President.

T. SMITH & SON, INC.,
New Orleans, La., July 12, 1956.

Senator ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on Flood Control and Rivers and Harbors,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: It has come to my attention that bill S. 3867, providing for the improvement of the waterway between Barataria Bay, La., and the Gulf of Mexico, by Senators Allen J. Ellender and Russell B. Long, will come to the attention of your committee. I wish to respectfully request that you and your colleagues vote in favor of this bill.

We service the offshore oil industry along the coast of Louisiana, which is engaged in the production of gas and oil, and urgently require a channel that is safe for our personnel and equipment. You can appreciate the equipment involved is specialized and represents heavy capital investment to this company and others. We understand that the United States Army Corps of Engineers has made a survey of this proposed project, which indicates that it is warranted and necessary.

The urgent needs for this enlarged channel are multiplying, and we urge that your committee act favorably so that the project can be included in the omnibus bill and construction started in 1957.

Sincerely yours,

TERENCE J. SMITH, *President.*

Mr. GORMIN. Our project has no detractors. Everyone is for it. We would like to see some money for it in 1957.

We appreciate your kindness in hearing us, Senator.

Senator HRUSKA. Thank you for coming, and thank you Congressman Boggs.

A statement of Senator Long will be made a part of the record at this point.

(The statement of Senator Long follows:)

STATEMENT OF SENATOR RUSSELL B. LONG

For a number of years there has been a growing need for a larger channel between Barataria, La., and the Gulf of Mexico. This need has been brought about largely because of barge traffic operating out of the Gulf of Mexico in the vicinity of Grand Isle and destined for the inland-waterway system near Barataria.

This route is only approximately 37 miles in length and makes it possible for traffic utilizing it to enter the Intracoastal System and proceed to the Mississippi River by way of Harvey lock and canal, making a total elapsed distance or only about 52 miles from the Gulf of Mexico to the Mississippi River and New Orleans. The present route through the Mississippi River is more than twice that distance.

In spite of the fact that at the present time the controlling depth of the existing channel from the Gulf of Mexico to Barataria is less than 5 feet, traffic over that route was increased more than 5 times in a 10-year period. There is every indication to believe that the providing of additional depth will make the channel available to a larger number of tows and make possible considerably greater utility of the channel.

The waterway which is proposed by this bill would be 12 feet deep and 125 feet wide. Starting at the intersection of the Intracoastal Canal and Bayou Barataria, it would follow the route of the existing waterway to mile 15.5 in Bayou St. Denis, thence by a new channel through the chain of islands along the west side of Barataria Bay to intercept the existing channel of Barataria Pass and through the excavated pass channel to the 12-foot contour in the Gulf of Mexico.

The present channel is 5 feet deep by 50 feet wide.

The estimated Federal cost of this project is $1,697,000 construction and $80,000 annual maintenance. Local interests will contribute $242,000 in addition to all necessary lands, easements, and rights-of-way, as well as necessary alterations to pipelines, cables, and other facilities.

Since introducing this bill, I have received correspondence from oil companies, oil-supply users, fishermen, and movers of heavy equipment, advising me of their interest in and need for this waterway. They have assured me that the introduction of a 12-foot channel on the west bank of the Mississippi River would be a great boon to the development of the commerce of that area and would return manifold the cost of construction and maintenance of such a project.

Senator HRUSKA. Next the Engineers on Barataria Bay, La., as embraced in S. 3867.

General ITSCHNER. Mr. Darling?

Mr. DARLING. I am H. V. Darling. I am appearing to describe the proposed Barataria Bay Waterway. This report and study, Mr. Chairman, was authorized by the Flood Control Act of 1944 and also by the River and Harbor Act of 1945. The Barataria Bay Waterway is located in the coastal region of South Louisiana.

The improvement contemplated in this report would extend from a point on the Intercoastal Canal 14.6 miles southwest of Harvey Lock to Grand Isle, a distance of 37 miles. It would consist of enlargement and realinement of the existing waterway shown in black, also of an extension to the 12-foot depth contour in the Gulf of Mexico and a 3.2 mile extension down Bayou Rigand. The existing waterway is 5 feet deep over a width of 50 feet. The proposed waterway would be 12-feet deep over a width of 125 feet. These dimensions are exactly the same as the Intercoastal Waterway into which the Banataria Waterway would feed.

Senator HRUSKA. Mr. Darling, what is that green blocked line running from Manila Village almost directly south toward Grand Isle?

Mr. DARLING. That is the portion of the waterway which is relocated. This [indicating] waterway, existing at the present time, through it has an authorized depth of 5 feet, may get as shallow as 4½ feet or less, due to wind and wave action in this wide expanse of water. It also increases the maintenance necessary in connection with the channel. So in the plan that is contemplated in this report this is moved back into the islands and bayou and marshland where it will

have some protection from the open waves and winds and accordingly entail much less maintenance.

The commerce on this waterway is composed largely of oil, oil products, seafoods, and shells. For the 10-year period preceding 1954 it averaged 403,000 tons. The total for 1954 was 695,000 tons. The increase has been steady on this waterway and it can be expected, that with the provision of the greater depth which is required by the petroleum movement in particular, the traffic will greatly increase. Petroleum is being found inshore and offshore in the Gulf of Mexico area and great use is being made of this waterway which is a much shorter route up to the Mississippi River and New Orleans.

Local cooperation in connection with this project requires that local interests shall provide all rights-of-way and easements necessary for construction and maintenance, and shall relocate or modify if necessary, the pipelines, cables, and other utility crossings over the waterway. And they shall hold and save the United States free from damages during construction and maintenance.

The economics of the waterway are shown by the following figures. The estimated total cost is $1,939,000 of which $242,000 is non-Federal cost. The total annual charges are estimated at $153,000, and when equated to the total benefits of $617000 give a cost-to-benefit ratio of 1 to 4.

That, sir, concludes my statement, unless the committee has some questions.

Senator HRUSKA. Is there a complete Chief of Engineers report on this item?

Mr. DARLING. The report is now before the Board of Engineers for Rivers and Harbors and is scheduled to be heard in their August meeting.

Senator HRUSKA. Has it been referred to the Bureau of the Budget?

Mr. DARLING. No, sir. It will not be referred to the Bureau of the Budget until after it has been returned from the Board. The district and division engineers' reports are in, and those are the reports that are before the Board.

Senator HRUSKA. Does that complete your statement on this project?

Mr. DARLING. Yes, sir.

Senator KERR. I have a letter from Congressman Boggs of Louisiana with reference to the Barataria Bay Waterway project in Louisiana.

(The letter follows:)

HOUSE OF REPRESENTATIVES,
Washington, D. C., July 18, 1956.

Hon. ROBERT KERR,
Subcommittee on Flood Control and Rivers and Harbors,
Committee on Public Works,
Senate Office Building, Washington, D. C.

DEAR SENATOR KERR: I am enclosing herewith a statement prepared by Mr. Everett T. Winter, executive vice president of the Mississippi Valley Association, which I would appreciate your incorporating in the record of hearings held on yesterday on the Barataria Bay project.

Best wishes.

Sincerely,

HALE BOGGS, *Member of Congress.*

STATEMENT OF EVERETT T. WINTER, EXECUTIVE VICE PRESIDENT, MISSISSIPPI VALLEY ASSOCIATION, IN SUPPORT OF BARATARIA BAY WATERWAY PROJECT, LOUISIANA

This waterway is used by vessels engaged in the movement of crude oil, supplies, and equipment for the drilling of offshore and inshore oil wells; in the shrimping and oyster-fisheries; and in pleasure fishing and yachting.

The shallow depths and narrow bottom widths preclude the use of marine equipment of economical size and full cargo capacity of barges now being used, as well as causing delays to vessels negotiating the project.

The proposed plan is for 12- by 125-foot channel with relocation of a portion of the project to the western side of Barataria Bay to provide a route free from wave action; and extension of the project to the 12-foot contour in the gulf, plus dredging of 3.2 miles of Bayou Rigaud at its eastern end.

The total cost of the project is estimated to be $1,939,000, with local interests to provide $242,000, leaving a $1,697,000 Federal cost. Benefit-to-cost ratio of this project is 4.1 to 1.

Senator HRUSKA. We have at hand a statement from Senator Wiley, of Wisconsin, on the Port Washington Harbor project, which is incorporated in S. 1680. It will be placed in the record at this point.

(The statement referred to above follows:)

UNITED STATES SENATE,
COMMITTEE ON THE JUDICIARY,
July 14, 1956.

Hon. ROBERT S. KERR,
Chairman, Senate Appropriations Subcommittee on Civil Works,
Senate Office Building, Washington, D. C.

MY DEAR MR. CHAIRMAN: I had hoped to be in a position to testify personally at your subcommittee hearing on Tuesday, July 17th, with reference to the latest omnibus rivers and harbors bill, H. R. 12080.

Unfortunately, I have a conflicting commitment in my State which will prevent me from being on hand to present oral testimony.

I should like, however, to make as a matter of committee record my deep interest in the approval by your committee and thereafter by the full committee of all of the Wisconsin provisions set forth in the House Public Works Committee version of the bill.

I have worked on just about every single one of these projects for quite some time, and I believe that a well-merited case has been made for each.

I refer, for example, to the provision for the transfer of the Upper Fox River engineering works to Wisconsin State authorities; as well as the other necessary provisions.

There is one particular item which is unfortunately omitted from the House draft, and that is provision for harbor improvement at Port Washington.

I had personally introduced S. 1680 to authorize the modification of the existing project for Port Washington Harbor.

I invite your attention to S. 1680.

I would be most grateful if the subcommittee and the full committee would add to the substance of S. 1680 to the omnibus bill.

Under date of September 28, 1955, the Department of the Army through Wilber M. Brucker, Secretary, advised "the Department of the Army favors the improvement of Port Washington Harbor."

The project was carried by the Congress in hearings back in 1954, but was at that time not included in the rivers and harbors bill of that year.

Thanking you for your consideration of this matter, and with best regards, I am

Sincerely yours,

ALEXANDER WILEY.

[S. 1680, 84th Cong., 1st sess.]

A BILL To authorize the modification of the existing project for Port Washington Harbor, Wisconsin

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the modification, recommended by the Chief of Engineers in the report printed in House Document Numbered 446,

Eighty-third Congress, of the existing project for Port Washington Harbor, Wisconsin, is adopted and authorized to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with the plan recommended in such report and subject to the conditions set forth therein.

SEC. 2. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

PORT WASHINGTON HARBOR, WIS.

(H. Doc. 446, 83d Cong., 2d sess.)

Location.—In city of Port Washington, Wis., on west short of Lake Michigan, about 29 miles north of Milwaukee, Wis.

Report authorized by.—House Public Works Committee resolution, April 13, 1948.

Existing project.—Provides for north breakwater 2,537 feet long; south breakwater 456 feet long; outer turning basin 21 feet deep and 750 feet wide; entrance channel 21 feet deep, and 2,400 feet long through south side of basin; west inner basin 140 feet wide, 490 feet long, and 18 feet deep; north inner basin 190 feet wide, 750 feet long, and 18 feet deep. Project was completed in 1936.

Plan of recommended improvement.—Provides for lengthening north breakwater about 1,280 feet; placing rubble on both sides of north breakwater; raising top of north cassion breakwater from +8 to +10 feet (L. W. D.); removing 456 feet of south breakwater; enlarging outer turning basin by deepending 150-foot wide strip on west side to 21-foot depth; and relocating channel lines to correspond with improvements.

Estimated cost

	Federal	Non-Federal	Total
Original estimate: [1]			
Report (January 1953)	$2,550,000	$160,000	$2,710,000
Current (January 1956)	2,931,700	184,600	3,116,300
Bureau of Budget recommendations: [2]			
Report	1,511,400	1,163,600	2,675,000
Current	1,760,700	1,355,600	3,116,300

[1] Reporting officer estimated that local benefits would comprise 6 percent of total benefits, hence non-Federal cash contribution would be 6 percent of total first cost.

[2] Non-Federal cost base l on cash contribution by local interests of 43½ percent of total first cost, as noted in paragraph on comments of Bureau of Budget below.

Local cooperation.—Local interests required to: (*a*) Provide without cost to United States all necessary lands, easements, and rights-of-way; and (*b*) hold and save the United States free from damages. Also required to provide cash contribution equivalent to 6 percent of first cost (based upon allocation as determined by reporting officer) or 43½ percent (based upon recommendation of Bureau of Budget, see paragraph following).

Project economics

	Report	Current
Annual charges	$97,500	$112,180
Annual benefits:		
Transportation savings	60,000	69,000
Elimination of vessel delays	13,000	14,950
Reduced dock damage during rough weather	200	230
Savings-vessel turnings	2,500	2,800
Reduced dock damage by improved turning conditions	1,975	2,270
Reduced damage and lost time, fishing vessels	17,725	20,380
Recreational benefits	3,350	3,850
Value-harbor of refuge	5,000	5,750
Total	103,750	119,310
Benefit-cost ratio	1.06	1.06

Comments of Bureau of Budget.—No objection to submission of report to Congress; however, the Bureau noted that (*a*) major part of benefits would accrue to single private beneficiary (Wisconsin Electric Power Co.), necessitating a larger local cash contribution than stipulated in Corps of Engineers report, and (*b*) recreational benefits do not appear to be adequately documented; hence authorization of the project would not be in accord with the program of the President. If the aforementioned public utility is considered as a "private interest," as recommended by the Bureau, the cost allocation would be made on the basis of proportional benefits. Benefits to said utility, resulting from savings in fuel transportation, comprise 75 percent of total estimated benefits. Based upon precedent in similar cases, the local cash contribution would be equal to one-half of this percentage, or 37½ percent of the total first cost. With the 6 percent allocation arising from recreational benefits, the total contribution would be 43½ percent of first cost.

Senator HRUSKA. Port Washington Harbor, Wis., General.

General ITSCHNER. Mr. Brennan.

STATEMENT OF JOSEPH R. BRENNAN, CORPS OF ENGINEERS

Mr. BRENNAN. Mr. Chairman, this is a navigation project at Port Washington Harbor, Wis.

Before describing the project, I might say that it was heard by both the House and Senate Public Works Committees in connection with the 1954 omnibus bill, but was not included in the bill. There was a difference of opinion between the Bureau of the Budget and the Corps of Engineers and the Secretary of the Army regarding the local contribution which revolved about the so-called one-user concept.

Senator HRUSKA. Have any of those differences been resolved? Or will you cover that later?

Mr. BRENNAN. I will cover that later. I might say that the differences have not been resolved, and the project is in exactly the same status now as it was when it was heard in 1954.

Port Washington is located on the west shore of Lake Michigan, about 30 miles north of Milwaukee, and about 30 miles south of Sheboygan. The project is a navigation project and is composed of a breakwater on the north side of the harbor extending about 1,200 feet, ending at this point indicated on the map.

On the south side a breakwater extends from an existing coal dock so as to form an entrance channel shown in this location. Also there is a turning basin 21 feet deep located between the two breakwaters. There are also two inner harbors shown as the North Harbor and the West Harbor, both 18 feet in depth.

The problem arises from difficulty which navigation now has in use of this facility. The principal movement is that of coal, incoming from the southern part of Lake Michigan or from Lake Erie. This coal is carried in relatively large colliers which draw up to the maximum depth permitted by the depth of the harbor.

However, because of the exposure to the north, and the particular form in which the breakwaters enclose the outer harbor, wave action is quite violent and during times of storm causes delays by preventing ships from entering the harbor, causes damage to those ships which are moored unloading coal at the coal dock, and also causes damage and extreme hazards to fishing craft which normally moor in the two inner harbors.

The proposed plan, which is the result of an extensive model study made by our Vicksburg Waterways Experimental Laboratory, would

consist of extension of the north breakwater in an angular form as shown on the map, raising and strengthening the outer end of the existing breakwater shown by the green dashes, and removing the dog-leg end of the existing south breakwater. It would also include widening for a distance of 150 feet a strip extending along the inner part of the outer harbor. The model study shows that with this improvement a much larger and less hazardous entrance channel would be provided in this location, thus permitting ships to enter without the present dangers and diminishing and lowering the wave motion which is caused by the present location of the breakwaters.

The total cost of the project based on current prices, Mr. Chairman, is $3,116,300, of which the non-Federal cost is $184,600, and the Federal cost, $2,931,700.

The annual benefits, again based on current prices, are $119,000, and the annual charges $112,000, giving a benefit-cost ratio of 1.06.

The contribution from local interests of $184,600 is based upon an evaluation of recreational boating and local benefits which amount to 6 percent of the total benefits to be produced by the enlargement and extension.

The application of that amount of 6 percent to the total cost produces a figure of $184,600. The major portion of the remaining benefit is almost all in connection with the traffic in coal that I mentioned earlier. The coal is delivered to the coal docks and thence to the powerplant of the Wisconsin Electric Company, which is a public utility, and is used to produce power which is generated and distributed to an area of approximately 11,000 square miles. That public utility is regulated by a State Commission, the Wisconsin Public Utility Commission. For that reason the Chief of Engineers felt that the application of the one-user concept was not appropriate in this case because the benefits from the improvement would be distributed and would accrue to the population of the entire area using the power, through reduction in rates.

The Bureau of the Budget took the position that that was not necessarily so since the user was a single organization and therefore being a single organization should be required to contribute 50 percent of the cost of the improvement attributable to this coal benefit.

The part which is attributable to the coal benefit is 75 percent of the total benefit. So that 50 percent of that figure would amount to 37 and a half percent of the total cost. That, added to the six percent which both the Bureau of the Budget and the Corps of Engineers agreed to as a proper contribution from the recreational and local benefits, would make a total of 43 and a half percent in the view of the Bureau of the Budget.

In terms of dollars, the total contribution, in accordance with the Bureau of the Budget, would be $1,338,200, leaving a Federal contribution of $1,778,100.

The project has had no action since the hearings in 1954. The most recent information from our field office indicates no particular change in the conditions or in the situation as it obtains today. Local interests are still very definitely interested in the plan, but there has been no commitment with respect to local cooperation because of the conflict between the two views.

That concludes, Mr. Chairman, my presentation.

Senator HRUSKA. What is the date of your latest report from the district office as to no changes having occurred in the conditions and circumstances of the site?

Mr. BRENNAN. That is January 1956, sir.

Senator HRUSKA. Thank you very much.

(A telegram received on this matter is as follows:)

MILWAUKEE, WIS., *July 24, 1956.*

Re: Omnibus bill on rivers and harbor for navigation, flood control, etc.

Senator DENNIS CHAVEZ,
Chairman, Senate Committee on Public Works,
Senate Office Building, Washington, D. C.:

Facts do not substantiate July 18 testimony of Corps of Engineers that improvements to Port Washington Harbor would result in lower electric service rates to customers of Wisconsin Electric Power Co. Adoption of plan would tend to increase rates. Proposed plan would reduce efficiency of powerplant by recirculation of condensing water and thus require more coal per kilowatt hour.

If this item in present form is to be further considered by your committee we would appreciate opportunity to enlarge upon arguments against approval of plan sponsored by Corps of Engineers.

CORNELIUS T. YOUNG,
Vice President, Wisconsin Electric Power Co.

Senator HRUSKA. With reference to the upper Wabash River project there are statements here from Senators Homer Capehart and William Jenner which will be incorporated in the record at this point.

(The statements referred to above follow:)

UNITED STATES SENATE,
Washington, D. C., July 9, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Senate Public Works Committee,
Washington, D. C.

DEAR SENATOR: I would like to call to your attention the Army Corps of Engineers report to your committee on June 14 of the Upper Wabash three-reservoir flood-control project, in Indiana. (Titled: "Report No. 824.04, Wabash River and Tributaries, at and above the mouth of White River, Ind.")

I would certainly appreciate your including House Document 435 (the Upper Wabash project) in the river and harbor bill when it comes over from the House side.

Your favorable action on this request will be deeply appreciated.

Regards.

Sincerely,

HOMER E. CAPEHART.

UNITED STATES SENATE,
Washington, D. C. July 13, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Senate Public Works Committee,
United States Senate, Washington, D. C.

DEAR SENATOR: Attached is a statement which I would like to be made part of the record on hearings regarding the omnibus flood control bill, H. R. 12080, next Tuesday.

Regards.

Sincerely,

HOMER E. CAPEHART.

STATEMENT BY SENATOR HOMER E. CAPEHART IN SUPPORT OF THE UPPER WABASH THREE-RESERVOIR FLOOD CONTROL PROJECT

I appreciate very much having this opportunity to submit my statement to the committee in support of the Upper Wabash three-reservoir flood control pro-

ject (Corps of Engineers Rept. No. 824.04, Wabash River and tributaries, at and above the mouth of White River, Ind.)

I have been advised that this project was cleared on May 25 by the Bureau of the Budget and that the favorable report of the Corps of Engineers was received by this committee on June 14. The project now carries House Document No. 435.

The report of the Corps of Engineers states that a system of three reservoirs comprises the most favorable plan for providing flood protection for the extensive urban and farming areas along the Wabash River in the Logansport-Huntington reach, and that such a plan would provide substantial additional flood control benefits along the Wabash River below Logansport and, in lesser degree, along the Ohio River below Wabash River and along the Mississippi River below Ohio River.

The elements of the plan are as follows:

(*a*) Salamonie Reservoir, to be situated in Wabash and Huntington Counties, Ind., would be formed by an earth dam located on Salamonie River 3.5 miles above its mouth. It would control a drainage area of 552 square miles. The estimated first cost of Salamonie Reservoir is $12,610,000 at current prices.

(*b*) Mississinewa Reservoir, to be situated in Miami, Wabash, and Grant Counties, Ind., would be formed by an earth dam located on Mississinewa River 7.1 miles above its mouth. It would control a drainage area of 801 square miles. The estimated first cost of Mississinewa Reservoir is $17,990,000 at current prices.

(*c*) Huntington Reservoir, to be situated in Huntington and Wells Counties, Ind., would be formed by a dam located on Wabash River above Huntington, Ind. The structure would consist of an earth embankment with gated concrete spillway section, and would control a drainage area of 708 square miles. The estimated first cost of Huntington Reservoir is $11,835,000 at current prices.

Functioning as a system, the proposed reservoirs would effect reductions in flood crest stages of such great floods as those experienced in this area in 1913, 1943, and 1950 that went up as high as 9 feet.

I sincerely believe that this is an exceptionally necessary project and hope that this committee will see fit to act favorably on the inclusion of this project in the omnibus flood control bill, H. R. 12080.

UNITED STATES SENATE,
COMMITTEE ON THE JUDICIARY,
July 12, 1950.

Re upper Wabash River project, Indiana.

Hon. DENNIS CHAVEZ,
Chairman, Public Works Committee,
United States Senate.

DEAR SENATOR: I should like to express to you my interest in the upper Wabash River project which was included in the survey report sent to the Congress June 14, 1956. I understand the projects recommended in this report did not reach the House committee in time to include them in the omnibus public works bill which has been reported, though I do understand that an amendment will be offered on the House floor to include it.

If it is not included in the bill when it reaches the Senate committee, I would appreciate your consideration to favorably consider this project when your committee acts, as it is of vital importance in the event of flood to many Indiana communities along this river.

Thank you for your consideration in this instance, and my kindest regards.

Sincerely yours,

WILLIAM E. JENNER.

STATEMENT OF SENATOR WILLIAM E. JENNER

Mr. Chairman and gentlemen of the committee, I appreciate the opportunity you have given me to come and speak on behalf of the flood control project known as the upper Wabash River in Indiana.

The survey report sent to the Congress has approved this project which affects industrialized urban areas located along major streams and large areas of rich farmland interspersed with small rural communities. The larger

cities on or near the main stem of the Wabash River are Vincennes, Terre Haute, Lafayette, Logansport, Peru, Wabash, and Huntington, all in Indiana.

I recommend committee consideration to include this project as submitted in the survey report in the omnibus public works bill which is now under consideration by the committee.

WABASH RIVER AND TRIBUTARIES AT AND ABOVE WHITE RIVER, IND.

(Interim report)

Location.—Wabash River rises near Celina, Ohio, flows northwesterly 67 miles to Huntington, Ind., thence southwesterly 312 miles to the confluence with White River, its principal tributary, and continues southwesterly to the Ohio River. It drains 33,100 square miles in Ohio, Indiana, and Illinois, of which 16,440 lie above White River.

Report authorized by.—House Committee on Flood Control resolution, May 23, 1946; Senate Committee on Public Works resolution, May 9, 1949.

Existing projects.—Provides for 23 local flood protection projects and 1 reservoir in area above White River. The Delphi, Lyford, Gill Township, and Brevoort local projects are either complete or essentially complete. One is under construction at Vincennes and preconstruction planning has been initiated for the Niblack project. Of the remaining 17 local protection projects, 3—Logansport, Peru, and Wabash—are in the Logansport-Huntington reach of the Wabash River, the area of principal concern in the interim report. Preconstruction planning is in progress for Mansfield Reservoir on tributary Raccoon Creek.

Plan of recommended improvement.—Provides for three flood-control reservoirs—Mississinewa at mile 7.1 Mississinewa River, Salamonie at mile 3.5 Salamonie River, and Huntington at mile 411.4 Wabash River. Gross capacities are 365,490, 238,700, and 154,170 acre-feet, respectively. The total drainage areas controlled will be 2,061 square miles.

Estimated cost

	Federal	Non-Federal	Total
Project document (1954)	$42,010,000	$425,000	$42,435,000
Current (January 1956)	45,463,000	460,000	[1] 45,923,000

[1] Mississinewa, $19,469,000; Salamonie, $13,646,000; Huntington, $12,808,000.

Local cooperation.—Provide 1 percent of the first cost of the improvements, currently estimated at $460,000.

Project economics

	Project document	Current
Annual charges	1,630,000	$1,764,000
Annual benefits:		
Reduction of flood damage	2,165,000	2,381,500
Higher land use	45,700	50,300
Total	2,210,700	2,431,800
Benefit-cost ratio	1.4	1.4

Senator HRUSKA. I have a statement from Congressman John V. Beamer, of Indiana, with reference to the Wabash River flood control.

(The statement follows:)

HOUSE OF REPRESENTATIVES,
Washington, D. C., July 16, 1956.

Mr. Chairman, the three-reservoir plan for the upper Wabash River flood control is of special interest to 5 of the 10 counties in the Fifth Indiana District (Jay, Blackford, Grant, Huntington, and Wabash); to 3 counties in the Fourth Indiana District (Wells, Allen, and Whitley); and to Cass County in the Second Indiana District.

In accordance with a resolution adopted by the House of Representatives, May 23, 1946, 73d Congress, 1st session, relative to flood protection at or near Logansport, Ind., the Corps of Engineers, United States Army, made extensive studies and surveys of the Wabash River and its tributaries.

Their report has been filed but I include a copy of their interim and final recommendations in order that this portion of the record may be complete.

I also include an article by Mr. Robert Kellum, executive secretary, Indiana Flood Control and Water Resources Commission which appeared in the July 15, 1956, issue of the Indiana Farmers Guide.

The various approvals prior to presentation to the Congress have been secured. These include approvals by the Governors of Indiana and Illinois; the Indiana Flood Control and Water Resources Commission; the United States Departments of Defense, Agriculture, Commerce and Interior, and the Bureau of the Budget. The Indiana State Legislature gave its approval in the 1955 session with an appropriation authorization of $50,000 as that State's estimated share of a total of $425,000.

This flood control program has been referred to the Agricultural Conservation Service of the United States Department of Agriculture for its consideration of the flood control with a series of small dams on the watershed program. For numerous reasons, some of which are explained in Mr. Kellum's article, this proposal was not considered feasible by that agency.

JOHN V. BEAMER, *Member of Congress.*

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., May 1, 1956.

Subject: Wabash River and tributaries, at and above the mouth of White River, Ind.

To: The Secretary of the Army.

1. I submit herewith for transmission to Congress the interim report of the Board of Engineers for Rivers and Harbors in partial response to resolution of the Committee on Public Works of the United States Senate, adopted May 9, 1949, requesting the Board to review the report published in House Document 100, 73d Congress, 1st session, and subsequent reports on Wabash River and tributaries, Ohio, Indiana, and Illinois, with a view to determining whether improvement of the Wabash River and tributaries at and above the mouth of White River, Ind., in the interest of flood control and allied purposes is advisable at this time; and in complete response to the following resolution of the Committee on Flood Control of the House of Representatives, adopted May 23, 1946, requesting the Board to review the recommendations contained in House Document 100, 73d Congress, 1st session, relative to flood protection at or near Logansport, Ind., with a view to providing protection in that locality by headwater reservoirs or other means. This report is primarily concerned with flood protection for the urban and rural areas along the reach of Wabash River extending from the downstream limits of Logansport, Ind., mile 352, to Huntington, Ind., mile 408.

2. After full consideration of the reports secured from the district and division engineers, the Board recommends the improvement of Wabash River and tributaries, Indiana, for flood control and allied purposes by the construction of Salamonie Dam and Reservoir at mile 3.5 on the Salamonie River, Mississinewa Dam and Reservoir at mile 7.1 on the Mississinewa River, and Huntington Dam and Reservoir at mile 411.4 on the Wabash River; generally in accordance with the plans of the district engineer and with such modifications thereof as in the discretion of the Chief of Engineers may be advisable; at an estimated cost to the United States of $42,010,000 for construction and $105,000 annually for maintenance and operation; provided local interests furnish assurances satisfactory to the Secretary of the Army that they will contribute in cash 1 percent of the first cost of the improvements, a contribution currently estimated at $425,000, and

provided further that any one of the improvements may be undertaken independently of the others whenever funds for that purpose are available and the prescribed local cooperation for that reservoir has been provided. The Board further recommends that the presently authorized local protection projects for Logansport, Peru, and Wabash, Ind., at a currently estimated Federal first cost of $9,572,000, be abrogated upon authorization of the improvements recommended herein.

3. After due consideration of these reports, I concur in the views and recommendations of the Board.

S. D. STURGIS, Jr.,
Lieutenant General, U. S. A.,
Chief of Engineers.

Senator HRUSKA. We will now hear the engineers on the Wabash River, in Indiana.

General ITSCHNER. Mr. Weinkauff.

STATEMENT OF HENRY WEINKAUFF, CORPS OF ENGINEERS

Mr. WEINKAUFF. Mr. Chairman, this report was authorized by resolution adopted May 23, 1946, by the House Committee on Flood Control, and a resolution adopted May 9, 1949, by the Senate Committee on Public Works. The authorization for this study is limited to the Wabash River above White River.

Senator HRUSKA. Will you indicate it on the inset map, please?

Mr. WEINKAUFF. Yes, sir.

However, the particular report—this is an interim report and it is primarily concerned with the alleviation of flooding of urban and rural areas along the reach extending from mile 352 at Logansport to Huntington, mile 408.

The basin consists of industrialized urban areas and large areas of rich farmland, interspersed with farm communities. The Wabash River is subject to frequent and destructive floods. Fifteen major floods have occurred since 1875. I might point out that one of the characteristics of the Wabash River Valley is its wide, flat plain.

Some damage from flooding in various parts of the basin occurs almost every year, and sometimes several times each year.

Recurrence of the 1913 flood, which was the maximum of record, would cause damage of approximately $30 million above the White River, of which $20 million would be in the reach from Logansport to Huntington. Loss of life also occurred during two recent floods in 1943 and 1950.

There are three federally authorized but not started local protection projects for Logansport, Peru, and Wabash. The Chief of Engineers considered various solutions to this problem, reservoirs, combinations of local protection projects with reservoirs, and finally came up with the plan which he recommends, which is three reservoirs: Mississinewa Salamonie and Huntington.

The gross storage capacity of the three reservoirs is 758,000 acre-feet. The total cost on a present-price basis is $45,923,000, of which $460,000 is a non-Federal cash contribution for land enhancement. The annual charges are $1,764,000, and the annual benefits $2,431,800. The benefit-cost ratio is 1.4.

The Chief of Engineers also recommends abrogation of the authorized but not started local protection projects for Logansport, Peru, and Wabash which on a present-price basis are estimated to cost approximately $10 million.

Senator HRUSKA. For the three of them?

Mr. WEINKAUFF. Yes, sir; for the three.

The Bureau of the Budget offers no objection to this project.

The other Federal agencies, while submitting some detailed comments, did not object to the plan as a whole. The State of Indiana fully endorses the plan.

Senator HRUSKA. Is it necessary for reference to Ohio, to the State of Ohio for comment?

Mr. WEINKAUFF. No, sir. Merely the State of Indiana.

Senator HRUSKA. I notice the watershed in the map above laps over into Ohio?

Mr. WEINKAUFF. Yes, sir; in the upper edge it does. However, the control is below, and consequently it was not necessary to refer it to the State of Ohio.

That completes my formal statement, sir, unless you have any questions.

Senator HRUSKA. Then this is an instance where the Chief of Engineers' report has been completed and submitted and the Bureau of the Budget has approved?

Mr. WEINKAUFF. Yes, sir; and it has been transmitted to the Congress.

Senator KERR (presiding). We have now S. 1568 and H. R. 7596, dealing with disposal of federally owned property at obsolescent canalized waterways.

I would like to put in the record a statement by Senator Earle Clements, together with a suggested amendment, and put the language of the bill itself in.

(The documents referred to above follow:)

UNITED STATES SENATE,
COMMITTEE ON APPROPRIATIONS,
June 25, 1956.

Hon. ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on Flood Control—Rivers and Harbors, Washington, D. C.

DEAR BOB: Your subcommittee has before it two bills—one, S. 1568 introduced by Mr. Chavez by request and the other, H. R. 7596, both dealing with the disposal of certain federally owned property at obsolescent canalized waterways. H. R. 7596 was identical to S. 1568 but it passed the House with several amendments on January 16 this year.

Two of the waterways with which the bill deals are located in Kentucky. The first is the Big Sandy and the bill as passed by the House would permit the disposal of the five locks and dams on this waterway, while the second deals with the Rough River and would permit the disposing of the obsolescent lock and dam on this waterway. At the present time, studies are authorized on both rivers to ascertain whether or not improvement in navigation is feasible. The Big Sandy survey will be completed in the coming fiscal year. The Rough River study has yet to be initiated. There is considereable concern by the users of these waterways that the disposal might interfere with some plan of development. Consequently, should the committee consider action upon the bill, it would be appreciated if the following amendment could be made:

In section 1 after the words "(5 locks and dams)" strike out the period and add the following:

"*Provided*, That the provisions of this section shall not be effective with respect to the Big Sandy River, Kentucky, and the Rough River, Kentucky, pending and until a determination has been made by the Secretary of the Army that the project structures and appurtenances including real property will not be required in connection with any improvements for navigation or other allied purposes under consideration in surveys of the Big Sandy River and Rough River now authorized."

In connection with lock and dam No. 3 of the Big Sandy River, a further amendment to the bill, in my judgment, is not only desirable but justifiable should the committee consider favorably reporting the measure. This dam has not been in operation for about 12 years. Originally constructed by the Corps of Engineers as a portion of a Federal navigation project for the Big Sandy, when its operation and maintenance was discontinued the pool formed by this movable dam was no longer maintained. As a result, the water supply for the city of Louisa, the county seat of Lawrence County in the State of Kentucky, is extremely restricted, particularly in summer months. Not only has the lack of an adequate water supply sharply curtailed existing industry, but has thwarted the commercial growth and expansion of this community which, unfortunately, is in an economically distressed area.

I am advised that a somewhat similar situation existed on the Muskingum River in Ohio in the year 1952 when the civil functions appropriation bill was approved, July 11, 1952, providing $250,000 for the purpose of the repair of lock and dam No. 10 on the Muskingum River at Zanesville, Ohio, contingent upon local interests supplying the remaining funds needed to repair the dam and upon their agreement to take over operation and maintenance of lock and dam No. 10 in the future. In order to protect the public water supply of the community of Louisa, as provided by dam No. 3 on the Big Sandy, I think that adequate legislative precedent exists for including in the bill the following amendment:

Following section 2 insert the following:

"*Provided*, That in lieu of preparing dam numbered 3 on the Big Sandy River for abandoning such funds may be expended for modification of the lock and restoration for said dam either as a movable or fixed type dam but not to exceed $50,000, contingent upon local interests furnishing such additional funds as may be necessary and agreeing to accept the property and take over operation and maintenance of the said structure."

In this connection, I am enclosing a copy of a letter from Major General Itschner, showing the status of the facilities discussed. Your favorable consideration of these suggestions would be appreciated.

With kindest personal regards,

Sincerely yours,

EARLE C. CLEMENTS.

AMENDMENTS SUGGESTED BY SENATOR CLEMENTS TO S. 1568 OR H. R. 7956

Following section 2 insert the following:

"*Provided*, That in lieu of preparing dam numbered 3 on the Big Sandy River for abandoning such funds may be expended for modification of the lock and restoration for said dam either as a movable or fixed type dam but not to exceed $50,000, contingent upon local interests furnishing such additional funds as may be necessary and agreeing to accept the property and take over operation and maintenance of the said structure."

In section 1, after the words "(5 locks and dams)", strike out the period and add the following:

"*Provided*, That the provisions of this section shall not be effective with respect to the Big Sandy River, Kentucky, and the Rough River, Kentucky, pending and until a determination has been made by the Secretary of the Army that the project structures and appurtenances including real property will not be required in connection with any improvements for navigation or other allied purposes under consideration in surveys of the Big Sandy River and Rough River now authorized."

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., June 14, 1956.

Hon. EARLE C. CLEMENTS,
United States Senate, Washington, D. C.

DEAR SENATOR CLEMENTS: Reference is made to your letter dated May 5, 1956, pertaining to the repair of the dam on the Big Sandy River near Louisa, Ky. In my letter of May 9, 1956, it was stated that I would look into the matter and inform you.

The structure referred to was constructed under the Federal navigation project for the Big Sandy River, authorized by the River and Harbor Act of 1880 and subsequent acts, to provide for slackwater navigation on this river and on Tug

and Louisa Forks. Lock and dam No. 3 at Louisa was completed in 1897 and operated for nearly 50 years. Commercial navigation gradually declined as timber reserves adjacent to the waterway were depleted, and since 1944 traffic on the river has not moved above lock and dam No. 2. The limited barge traffic now using this lower reach passes over dam No. 1 at times of high water. Inasmuch as no traffic existed, operation of lock and dam No. 3 was discontinued in 1944.

While the importance of an adequate water supply for the city of Louisa is recognized, the Chief of Engineers is without the necessary authority to expend appropriations for maintenance of navigation projects for the purpose of operating the dam at Louisa for water supply or other local purposes. It is estimated that about $50,000 would be required to repair and replace the needles in this movable dam and about $15,000 would need to be expended annually for operation and maintenance.

In the absence of a requirement for operation of dam No. 3 for navigation, I have to inform you that appropriate authorization by Congress would be required to restore the structure for water supply purposes.

I trust the foregoing information on the status of this waterway meets your present needs. Should you desire any further details regarding the Big Sandy River project, I will be pleased to furnish them upon your request.

Sincerely yours,

E. C. ITSCHNER,
Major General, U. S. A.,
Assistant Chief of Engineers for Civil Works.

[H. R. 7596, 84th Cong., 2d sess.]

AN ACT To provide for the disposal of federally owned property at obsolescent canalized waterways, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, (a) whenever the Secretary of the Army, upon recommendation of the Chief of Engineers, determines that any of the following listed Federal project structures and appurtenances, including real property acquired therefor, no longer economically serve the purpose for which they were constructed or acquired, such property may be disposed of in accordance with the provisions of existing law: Upper White River, Arkansas (three locks and dams); Big Sandy River, Kentucky (five locks and dams); Rough River, Kentucky (one lock and dam); Osage River, Missouri (one lock and dam); Muskingum River, Ohio (eleven locks and dams); Yamhill River, Oregon (one lock and dam); Congaree River, South Carolina (one lock and dam); Little Kanawha River, West Virginia (five locks and dams).

(b) If any of the project structures and appurtenances (including real property) listed in subsection (a) will be rendered inoperable by flooding caused by current construction by the United States, disposal of such structures and appurtenances under this Act shall be deferred so long as local interests defray the costs of maintenance and operation of such project structures and appurtenances (including real property) under arrangements satisfactory to the Secretary of the Army.

SEC. 2. There is hereby authorized to be expended from appropriations heretofore or hereafter made for civil functions administered by the Department of the Army, such funds as may be necessary to restore drainage and otherwise prepare the project structures for abandonment with a minimum of adverse effect on adjacent areas.

SEC. 3. The Administrator of General Services is hereby authorized to transfer or to convey by quitclaim deed to local interests defraying the cost (in whole or in part) of maintaining and operating such project structures and appurtenances (including real property), States, political subdivisions thereof, adjacent property owners, or others, all or any part of the right, title, and interest of the United States in and to such property upon such terms and conditions as the Administrator may determine to be in the public interest, after making allowance for any capital investment which local interests maintaining and operating such project structures and appurtenances (including real property) may have made, regardless of any other provision of law: *Provided, however*, That preference shall be given first, to local interests who, on the date of enactment of this Act, are defraying the cost (in whole or in part) of maintaining and operating such

project structures and appurtenances (including real property), and second to State or local governmental agencies, to acquire property not transferred to other Federal agencies. Providing that the provisions of this Act, relating to the Palestine Dam (lock and dam numbered 4) on the Little Kanawha River in West Virginia, be inoperative until such time as the Federal Government has reimbursed the State of West Virginia through its Conservation Commission, the sum of $20,000 to cover the cost of damage to the State-owned fish hatchery near Palestine, which was damaged by the failure of the Government to keep the dam in proper repair.

Passed the House of Representatives January 16, 1956.

Attest:

RALPH R. ROBERTS,
Clerk.

STATEMENT OF FRANK HELLER, CORPS OF ENGINEERS

Mr. HELLER. Mr. Chairman, the purpose of the bill, H. R. 7596, is to authorize the disposal of the federally owned property in this group of waterways which comprises 28 locks and low-head dams that are no longer operated and maintained by the United States. The structures were built many years ago and no longer serve the purpose of commercial navigation. Inasmuch as these properties are still part of authorized Federal projects it is considered that they cannot properly be transferred to others or declared excess without authorization from Congress.

The Department recommended to Congress enactment of the legislation introduced as S. 1568. The bill as passed by the House embodies the provisions of S. 1568 and certain amendments adopted by the House to insure protection of local interests which are defraying the cost of operating and maintaining some of these structures.

The Chief of Engineers has no objections to those amendments.

One provision has been added to the bill, however, that would require payment of $20,000 to the State of West Virginia to cover the cost of damage to the State-owned fish hatchery. The hatchery located above the dam was damaged by loss of the pool and slippage of the river bank at the time the dam was breached due to lack of repair of this obsolescent structure.

It is considered that the United States is not legally liable for such damage and payment therefor may establish a precedent for payment of undetermined amounts in similar cases in the future.

Senator KERR. The Army is opposed to that?

Mr. HELLER. In those cases, Mr. Chairman, it is left to the determination of Congress. We neither oppose it nor recommend it.

Senator KERR. You call attention to the significance of it as setting a precedent. Let me say that I am neither for nor against but I personally would like to know how the Army feels. If it feels it would be an unwise precedent I would like to have them say so.

Mr. HELLER. It could result in other claims for payments coming to Congress, which would require authorization because of the fact that we are not legally obligated to pay such claims. They would require specific authorization by Congress for payment.

Senator KERR. You think it is a debt the Government does not owe?

Mr. HELLER. We consider that the Government is not obligated to pay for this damage.

Senator KERR. Are there any questions on that?

Senator HRUSKA. I have none.

Senator KERR. We have a letter from Senator Earle Clements asking us to consider inclusion of an amendment which would implement S. 3791.

Are you familiar with that, General Itschner?

General ITSCHNER. Not by that number.

Senator KERR. I believe that such a provision is in the House bill at section 205.

(The document referred to above follows:)

[S. 3791, 84th Cong., 2d sess.]

A BILL To provide for a more comprehensive development and utilization of natural water resources in plans and construction of reservoir projects

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Congress hereby recognizes that the shortage of water in streams during periods of low flow limits the economic usefulness of those streams; that with the expanding population and new uses and great demands for water it is in the best interests of national security and general welfare that provision be made to increase low stream flows.

SEC. 2. In prosecuting plans and projects for flood control, navigation, and other allied purposes heretofore and hereafter authorized, storage may be included in any reservoir project to be constructed by the Corps of Engineers without reimbursement to increase low flows downstream to the extent warranted at that time or anticipated to be warranted during the economic life of the project, by areawide, general, and nonexclusive benefits from such increase in low flows.

UNITED STATES SENATE,
COMMITTEE ON APPROPRIATIONS,
June 27, 1956.

Hon. ROBERT S. KERR,
Chairman, Senate Public Works Subcommittee on Flood Control—Rivers and Harbors, Washington, D. C.

DEAR BOB: When your subcommittee meets to formulate the omnibus rivers and harbors legislation, I would appreciate it very much if you would give careful consideration to the inclusion of a provision which would accomplish the objectives sought by my bill, S. 3791.

In this connection, I submit my statement of my reasons for believing that this legislation is so essential at this time.

With kindest personal regards,

Sincerely yours,

EARLE C. CLEMENTS.

STATEMENT OF SENATOR EARLE C. CLEMENTS IN SUPPORT OF S. 3791

Mr. Chairman, and members of the subcommittee, I appreciate the opportunity to appear before you today in support of my bill S. 3791 to provide for a more comprehensive development and utilization of natural water resources in the planning and construction of reservoir projects.

My studies of the many water problems confronting us indicate to me that the future economic capacities and greatness of this country may depend, in considerable measure, on how well we manage our water resources.

Our present Federal water policies have been developed over the years to meet the needs of a growing nation. In fact, Federal participation in the development and use of the Nation's water resources has been evolving for the past 150 years. In the early part of the 19th century when the needs for transportation were dominant, canal building and river and harbor improvements took precedence. A century or so later, with the westward movement of settlers into the arid regions, irrigation became of increasing importance. Later, thickening settlement and concentrated use of river plains brought flood control to the fore Also, development of the electric power industry focused attention on the hydroelectric possibilities of the Nation's streams. Recently the increasing demand for water supply, coupled with repeated droughts, has become a cause of major concern and has emphasized the need for the most efficient use of all water.

Because we in the United States were particularly blessed with an initial abundance of fresh water, we can only blame ourselves for the lack of foresight which now forces us to face up to an impending water shortage. We must turn attention and take more positive action toward elimination of water waste through uncontrolled floods, lack of proper conservation practices and stream pollution. My proposal is directed to strengthening existing law and to supplementing other pending legislation to provide authority for this positive action.

Today, in more and more places throughout the country, the increasing demands for water are already overtaxing or are approaching the limits of readily available water supply. In such situations conservtion of available water is essentil for supporting a continuing expanding economy.

Gen. S. D. Sturgis, Jr., the Chief of Engineers, has warned that "the most critical single future water resources problem facing the Nation is that of providing an assured adequate supply of water for future domestic, indstrial, and other needs." It is recognized that the Federal Government is already rendering important cooperative services in the field of water supply and that many reservoirs constructed by the Corps of Engineers and the Bureau of Reclamation are now providing water supply generally in accordance with specific requests based on present needs of local interests. However, the services now rendered are generally incidental to some other primary uses of the reservoirs.

I maintain that present policy, which prevents the Corps of Engineers from including additional storage in its upstream flood control reservoirs without remuneration from local interests for the additional cost, is actually prohibiting full and feasible development of our water resources In many instances, the benefits to be derived from additional storage for downstream users are widespread and of national significance.

Fortunately, water used for municipal and industrial purposes, if properly treated, can be used over and over again. Only 5 or 10 percent of a supply is consumed, the remainder being discharged in the stream for use again.

The reservoirs of the future should be scientifically planned and designed to include appropriate provisions for storage for future water supply needs. My bill will provide this necessary authority. S. 3791 states in the declaration that the Congress recognizes that the shortage of water in streams during periods of low flow limits the economic usefulness of those streams; that with the expanding population and new uses and great demands for water it is in the best interests of natinal security and general welfare that provision be made to increase low streamflows. In this connection, the United States Department of Commerce has very recently issued some interesting facts relating to public water supplies in the United States together with projections for 1975.

In brief summary, our present population is about 165 million, of which 126 million live in communities. About 111 million are served by public water supplies from which the daily average of water furnished amounts to 17 billion gallons or 150 gallons per capita.

In 1975, our population residing in the United States is conservatively estimated to approach 207 million. Community population is estimated to then be 163 million, of which 149 million would be served by public water supplies, from which a daily average of about 30 billion gallons would be furnished. This would amount to 200 gallons per capita, the increase over use today resulting from estimated additional water uses in the home, office, or industry. So the projected picture as related to our public water supplies is an increased need of 13 billion gallons in 20 years or more than 75 percent of present use.

Corresponding needs for rural, direct industrial, and irrigation water added to the needs for public water supply make a total estimated need in 1975 of 453 billion gallons per day as compared with 1955 estimated use of 262 billion gallons.

The annual rainfall and usable ground water supply are adequate in most sections of the country to meet these growing needs and provide for continued future expanded use, provided we act today to hold and conserve the excess rainfall and flood flows for use during periods of low flow or drought.

It may be of value to look back for a moment to the situation faced by the 68 percent of the people of this country served by public water supplies in 1953, a year of unusually low streamflow in many parts of the United States. The United States Geological Survey, in its Report on Public Water-Supply Shortages, 1953, stated that about 25 out of every 100 persons served by public water supply systems had their use of water curtailed sometime between January 1 and September 30, 1953. During that period, 1,072 public water supply systems serving 24 million customers restricted the use of water. Shortages were reported in

45 States. Small towns short of water were more numerous than large cities, but a greater percentage of the cities were involved. Of the 1,072 municipalities reporting water shortages, 51 percent attributed the conditions to population growth and increased seasonal use; about 1 percent to an increase in industrial use; 34 percent to supply failure; and 14 percent to a combination of the above reasons.

In 1955, conditions over the Nation were not as critical. Yet, last year there were approximately 66 water shortage areas, affecting a total of about 18 million persons as well as associated industrial and commercial activities.

If water shortages were classed as critical the past few years, what will they be like in 1975, under conditions nearly twice the 1953 use?

It is important to mention in this connection, that the 1953 situation, for example, would have been more serious had it not been for the Army engineers dams. I would like to quote portions of a fact sheet issued by the Department of Defense, October 30, 1953, containing information to show the part played by the partially completed chain of Corps of Engineers dams along the Mississippi-Missouri-Ohio River system and in the Southwest in providing waterflow in times of drought, such as that of 1953.

"At the present time, according to Maj. Gen. Samuel D. Sturgis, Jr., Chief of Army Engineers, the flood control and navigation dams are providing from 75 to 90 percent of the flows in various reaches of the three rivers. They also were responsible for helping Southwestern communities and industries to meet critical shortages which in some instances resulted in rationing for home use.

"Water supplies also have been continued for many communities along the 6,000-mile stretch of the Mississippi-Missouri-Ohio River system, eliminating potential stream pollution problems due to accumulations of sewage and industrial waste.

"In the 1953 drought, situations were as follows in various key areas:

* * * * * * *

"In the highly industrialized Ohio River Valley, water releases from nine Corps of Engineers reservoirs have contributed measurably toward keeping coal moving and the steel mills producing.

"For example, 80 percent of the Mahoning River's flow at Youngstown is currently being maintained by water from the Corp's Berlin and Mosquito Creek Reservoirs and the locally built Milton Reservoir. Warren, Ohio, an important steel center in the Mahoning River Basin, would be faced with crippling water shortage without the upstream reservoirs.

* * * * * * *

"Twelve communities in the Monongehela River Basin which rely on river water for domestic supply would be in serious straits were it not for the Army's Tygard and Youghiogheny Reservoirs which are contributiong 90 percent of the river's flow.

"At Pittsburgh, Pa., reservoir storage on the Allegheny and Monongahela was contributing one-third of the flow in the river from which that city gets its water supply.

"Similar conditons prevailed at Wheeling, Cincinnati, and Cairo. At the latter city, near the mouth of the Ohio, the flow last week was 37,000 cubic feet, of which 20,000 was coming from reservoir storage.

"In the Southwest (Texas, Oklahoma, Kansas, Missouri, and Arkansas), the worst drought in history cut stream flows and completely stopped them on several major rivers, causing ground water tables to fall and creating critical problems in city and industrial water supply, pollution, fish and wildlife survival and stock watering.

"Water stored behind 27 Corps of Engineers multiple-purpose dams played a major part in helping to keep streams live and providing water for municipal and industrial use, in some areas where water was so scarce home use was rationed. Nine of thes dams were completed in the last 3 years, just in time to help out in the drought."

In the foregoing remarks, I have briefly touched upon our growing future water requirements for domestic and industrial use, the situation relating to water supplies during the drought of 1953, and some examples of the effect of the Corps of Engineers' projects in alleviating or improving conditions through provision of increased low water flows in that year. But without minimizing the value of existing Corps of Engineers projects and the beneficial effects described above, I hasten to emphasize the absence of comprehensive water use planning relating to flood control, navigation, and multiple-purpose reservoirs

until legislation is enacted providing appropriate authority to the Corps of Engineers and other agencies to include water supply as a specific function in the planning, construction, and operation of their projects.

Of first importance is comprehensive planning. Unfortunately, when the so-called 308 river basin surveys were authorized in 1927 for prosecution by the Corps of Engineers, no specific provision was made to include water supply. The effect of droughts and harmful low-water conditions was not fully realized at that time. But now we are confronted with a situation which is becoming more serious every summer. Unfortunately, shortages of municipal and industrial water were apparently not clearly recognized as of national concern by the new Hoover Commission or President Eisenhower's Advisory Committee on Water Policy. I maintain, however, that it is a national responsibility to determine the extent an increase in low flows may be warranted during the economic life of a flood control or multiple-purpose project by the area-wide, general and nonexclusive benefits from such increase in low flows.

At this point, I refer again to Tygart Reservoir in West Virginia as an example of the type of general or national benefits from increase in low-water flows. Tygart River Dam was first authorized in 1934 as a public works project. It was later adopted by the River and Harbor Act approved August 30, 1935. Approximately 290,000 acre-feet of storage is provided; 279,000 acre-feet in this is for flood prevention and 11,000 acre-feet is for permanent storage. The project also provides for low-water control by storing 100,000 acre-feet during the spring months for release during low rainfall periods to make up the deficiency in water in the Monongehela River. The division engineer, Ohio River Division, Corps of Engineers, has recently described the effect of Tygart Reservoir as follows:

"Tygart Reservoir provides a water supply and pollution abatement service of widespread value. It contributes toward a lessening of hardness and acidity problems along the Monongehela River and to dilution of organic wastes and organic waste residuals at points of critical concentration along the Monongehela and Ohio Rivers, the lowermost of which is Cincinnati."

It is doubtless true that at the time Tygart Reservoir was planned, the above-mentioned general benefits were forseeable because of the existing industrial growth of the area. But 6 years ago, President Truman's Water Resources Policy Commission, in reviewing existing Corps of Engineers projects, found that evaluated benefits of all types accruing from the Tygart Reservoir aggregated about $22,500,000 or 122 percent of the first cost of the project. The Commission further noted that the experienced benefit cost ratio was of the order of 2.23 to 1.0 compared to the original estimate of 1.38 to 1.0. The benefits realized from pollution control and improvements of domestic and industrial water supplies were found to be much greater than originally anticipated.

The above evaluation was made in 1950 and prior to the previously mentioned critical drought year of 1953.

Tygart reservoir is cited as an example of widespread benefits from increasing low water flow. But the principal point I wish to make is that 10, 20, or 50 years hence there may be many areas that would receive similar benefits if we consider the growth of the country and the future needs for water. It is not only important that we do not fail to recognize future needs, but it is perhaps even more important that we do not permit inadequate structures to be planned and built, structures that may actually prevent maximum development of water resources.

A further word as to cost sharing—there has been much talk of water supply being a local responsibility. To be sure, the supply of the normal and direct needs of a community is and should be its responsibility. But, it seems to me, there is also an area of control and responsibility that transcends local and State lines and the ability of these levels of government to meet effectively their needs. Flood control reservoirs are designed to prevent damage to communities composed of individuals and all types of businesses and industries that have located in the river valleys. These reservoirs might be looked upon as providing insurance that flood flows will be reduced or evened out and therefore not cause excessive flood damage. May it not be equally important that the low water flows be evened out so they will not cause damage to the water supply of these same communities, individuals and industries or be a detriment to other uses of the stream? My point is that regulation of extreme high and extreme low flows may be equally important to the area benefited. But we do not have the facts or studies upon which to base an evaluation. At present, the Federal Government can comprehensively plan and construct for the former

but not for the latter. Most fortunately the two programs incorporating the storage of water for flood prevention and increased low water flows go hand in hand. Likewise, the increase in low water flow for water supply in many instances would aid materially in meeting the requirements of navigation.

So, I strongly urge that legislation be provided under which cost-benefit and cost-sharing studies could be made, giving weight to national, regional and local needs. If we are going to plan and construct properly for the future, someone must take the lead. It is only where any and all of several needs can be met through cooperative action under Federal leadership that we can be assured of a balanced, effective, and truly comprehensive water conservation and development program.

LOS ANGELES, CALIF., *July 20, 1956.*

Hon. THOMAS H. KUCHEL,
United States Senate,
Senate Office Building, Washington, D. C.

Request your assistance in amending section 205 of H. R. 12080 so it will apply to dams heretofore constructed in Los Angales County by Corps of Engineers and thus provide for the conservation of floodwaters which would otherwise be carried to the ocean through concrete lined channels also constructed under the Federal flood control program. Section 205 now refers to "any reservoir to be constructed by the Corps of Engineers" which would appear to exclude such existing reservoirs as Whittier Narrows, Santa Fe, Hansen, and Lopez where temporary storage to build up low flows for conservation in this districts. Spreading grounds below is vital if wastage of floodwaters is to be avoided in this area of water scarcity. Such wastage must be prevented. Your efforts in this regard will be greatly appreciated.

H. E. HEDGER,
Chief Engineer,
Los Angeles County Flood Control District.

Senator KERR. Does the Army have objection to this?

General ITSCHNER. We have never commented on it officially. We have not had this bill for comment. During the hearings in the House we did not testify on it.

Senator KERR. Does the Army have a position on it?

General ITSCHNER. We don't have a position on it, sir, at this time.

Senator KERR. I wonder if it would be possible for the Secretary to get us an indication of it in the next 2 or 3 days?

General ITSCHNER. Yes, sir. We shall get you a position on the bill.

(The information requested is as follows:)

DEPARTMENT OF THE ARMY,
Washington, D. C.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 3791, 84th Congress, a bill "to provide for a more comprehensive development and utilization of natural water resources in plans and construction of reservoir projects."

The Department of the Army has considered the above-mentioned bill, the purpose of which is to permit the inclusion of storage without reimbursement in any Corps of Engineers reservoir project, heretofore or hereafter authorized, to increase low flows downstream to the extent warranted at that time or anticipated to be warranted during the economic life of the project, by areawide, general, and nonexclusive benefits from such increase in low flows.

As stated in letter from this Department dated February 2, 1956, furnishing comments on S. 2374, 84th Congress, a bill "to authorize the Secretary of the Army to enter into contracts to furnish water for municipal water supplies from flood control and river and harbor projects," the Department of the Army is in complete accord with the objectives of that bill. However, certain modifications were suggested in that letter, and a proposed substitute bill was enclosed

which would provide broad policy guidance and authority to modify project structures to include provision for water supply as well as authority to contract to furnish water-supply services. Neither S. 2374 nor the proposed substitute bill would provide authority to include water-supply storage in reservoir projects without reimbursement on the basis of areawide, general, and nonexclusive benefits resulting from increases in low flows as contemplated by S. 3791.

Section 1 of the Department of the Army's proposed substitute bill to S. 2374 referred to above states that it is declared to be the policy of the Congress to recognize the primary responsibilities of the States and local interests in developing water supplies for domestic, municipal, industrial, and other purposes and that the Federal Government should participate and cooperate with States and local interests in developing such water supplies in connection with the construction, maintenance, and operation of Federal navigation, flood control, or multiple-purpose projects. The proposed substitute bill provides that before construction of any authorized reservoir project including water-supply provisions is initiated, or the plans or operation of any existing project are modified in the interest of water supply, State or local interests must agree to pay the costs allocated to water supply.

The authority to provide storage in Corps of Engineers' reservoir projects without reimbursement to increase low flows downstream to the extent warranted by areawide, general, and nonexclusive benefits as contemplated by S. 3791 would constitute an exception to the present general policy and provisions for reimbursement set forth in the Department of the Army's proposed substitute bill to S. 2374 referred to above. Furthermore, the President's Advisory Committee on Water Resources Policy has studied this problem and has emphasized the desirability of repayment by water users. While the Department of the Army recognizes the desirability of providing for low-flow regulation, and the difficulty of identifying beneficiaries and assessing costs for such benefits, it is suggested that the committee may wish to consider this legislation in the light of the recommendations of the President's Advisory Committee on Water Resources Policy. Assumption of low-flow regulation generally as a Federal responsibility represents an important extension of the Federal interest in water-resources development, which is, of course, a matter for consideration and decision by the Congress and the President.

Inasmuch as the committee has requested that the report be expedited, it is submitted without a determination by the Bureau of the Budget as to whether or not it conforms to the program of the President. As soon as such advice is received it will be forwarded to your committee.

Sincerely yours,

_____,

Acting Secretary of the Army.

Senator KERR. You are familiar with S. 4206, by Senators Kerr and Monroney. I believe the purposes generally of that have been approved both by the Army and the Bureau of the Budget in communications heretofore sent.

General ITSCHNER. Yes, sir, with one exception, on page 4, line 20. The Army and the Budget recommended that a 15 percent limitation be applied rather than 50 percent.

Senator KERR. Your report on the projects in southeastern Oklahoma showed substantially more than 15 percent available from municipal water supplies.

General ITSCHNER. Yes, sir. That is a specific project of course. This is general legislation.

Senator KERR. This doesn't say that the cost of such provision for future water supply shall be as much as 50 percent. It just says it shall not be more than.

General ITSCHNER. Yes, sir.

Senator KERR. Would you be able to indicate whether or not a larger figure than 15 percent, in view of the fact that it is a negative and not a positive provision, would be contemplated favorably?

General ITSCHNER. We have discussed that figure with the Bureau of the Budget and as a result of that discussion we came up with the 15 percent figure. We had considered a slightly larger amount being proper. But it is a matter of judgment as to what should be given as the upper limit. It was finally concluded that 15 percent would give us enough latitude to cover most of the projects. If it didn't we would then have to request a larger amount in specific legislation at the time of authorization of the project.

Senator KERR. There are a number of reports by the Chief of Engineers, approved by the Review Board, which give acceptance or approval of figures a good deal higher than 15 percent.

General ITSCHNER. The Millwood report is the one which comes to mind. There may be others, but very few I believe. The Russian River report in California is another example.

Senator KERR. Do you recall the percentage there?

General ITSCHNER. Mr. Brennan said it is about one-third. That would be 33⅓ percent.

Senator HRUSKA. Would 15 percent be ample for most of the cases?

General ITSCHNER. It certainly would be ample for most of the cases. It would not cover all of them.

Senator KERR. Off the record.

(Discussion off the record.)

(The bill referred to above is as follows:)

[S. 4206, 84th Cong., 2d sess.]

A BILL To provide for Federal participation and cooperation with States and local interests in developing water supplies for domestic, municipal, industrial, and other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it is hereby declared to be the policy of the Congress to recognize the primary responsibilities of the States and local interests in developing water supplies for domestic, municipal, industrial, and other purposes and that the Federal Government should participate and cooperate with States and local interests in developing such water supplies in connection with the construction, maintenance, and operation of Federal navigation, flood control or multiple purpose projects.

SEC. 2. In carrying out any authorized navigation or flood control survey, or review investigation, involving improvements which may be useful in developing water supplies, the Corps of Engineers shall consult with the State or States affected and the United States Public Health Service, Department of Health, Education, and Welfare, with a view to including in the reports thereon submitted to Congress, plans for the development of water supplies for domestic, municipal, industrial, and other purposes, and such reports shall include the views and recommendations of the States and the United States Public Health Service on the plans for water supply. Features for providing water supply storage capacity, facilities, or services may be included in any navigation, flood control, or multiple purpose project recommended for construction by the Corps of Engineers, subject to the following provisions of this Act.

SEC. 3. Before construction of any project including water supply provisions is completed, State or local interests shall agree to pay the costs allocated to water supply. Such costs shall be determined by the Chief of Engineers in such manner that all authorized purposes served by the project shall share equitably in the benefits of multiple-purpose construction. The schedule of payments by States or local interests of such costs may provide either for paying the share of the construction expenditures during construction of the project, plus annual payments for operation, maintenance, and replacement costs as incurred; or for equal annual payments for the construction costs, and interest on the unpaid balance, plus annual payments for operation, maintenance, and replacement costs as incurred: *Provided*, That the entire amount of the construction costs, including interest during construction, allocated to water supply shall be repaid within

the economic life of the project, but in no event to exceed fifty years after the project is first available for the storage of water for any purpose. The interest rate used for purposes of computing interest during construction and interest on the unpaid balance shall be determined by the Secretary of the Treasury, as of the beginning of the fiscal year in which construction is initiated, on the basis of the computed average interest rate payable by the Treasury upon its outstanding marketable public obligations, which are neither due nor callable for redemption for fifteen years from date of issue.

SEC. 4. The plans for any authorized navigation, flood control, or multiple purpose project on which construction has not been initiated, or any existing project, may be modified or its operation changed by the Secretary of the Army to provide additional storage capacity, facilities, or services for water supply as he considers reasonable: *Provided*, That before construction is completed, or in the case of projects under construction or completed, before changes for the benefit of water supply are made in the project, or before operation is modified in the interest of water supply, State or local interests shall agree to pay the costs allocated thereto as provided in section 3 of this Act: *Provided further*, That such modifications which would seriously affect the purposes for which the project was authorized or constructed or which involve major structural or operational changes shall be made only upon the specific authority of Congress.

SEC. 5. The plans for any authorized navigation, flood control or multiple purpose project on which construction has not been initiated may be modified to include provisions for future water supply when directed by resolution by the Public Works Committee of the Senate or of the House of Representatives, or when approved by the Secretary of the Army upon recommendation of the Chief of Engineers: *Provided*, That the cost of such provisions for future water supply shall not be more than 50 per centum of the total estimated cost of the project and reasonable assurance is given by States or local interests that the use of the future water supply provided for will begin within not more than ten years after the time the project is first available for the storage of water for water supply purposes, and that necessary water rights for such use have been or can be obtained: *Provided further*, That States or local interests indicate a willingness to pay for such water supply in accordance with section 3 above, beginning when the water supply is used, and costs allocated to water supply shall be repaid within the economic life of the project, but not to exceed fifty years after the time the project is first available for the storage of water for water supply purposes: *And provided further*, That in arriving at the costs to be repaid, the interest charges on the initial cost of provisions for future water supply during the period until the water supply storage is used will not be included, but in no case will the interest-free period exceed ten years.

SEC. 6. Responsibility for complying with any applicable State law relating to water supply or water use shall rest with the State or local interests contracting to pay the costs allocated to water supply or utilizing the water supply services.

SEC. 7. That part of the second proviso of the first paragraph of section 5 of the Flood Control Act of June 22, 1936, as amended (33 U. S. C. 701h), pertaining to modification of reservoir projects is hereby repealed, except as to contracts and agreements in force at the date of this Act.

RELOCATION OF PUBLICLY OWNED BUILDINGS AND STRUCTURES AFFECTED BY DAMS AND RESERVOIR PROJECTS

Senator KERR. We have now a proposed amendment by Senator Clements relating to relocation of publicly owned buildings and structures that will be affected by dams and reservoir projects.

(The amendment referred to above is as follows:)

UNITED STATES SENATE,
COMMITTEE ON APPROPRIATIONS,
July 9, 1956.

Hon. ROBERT S. KERR,
Chairman, Subcommittee on Flood Control, Rivers and Harbors,
Committee on Public Works, United States Senate, Washington, D. C.

DEAR BOB: Many communities along streams on which the United States Corps of Engineers is undertaking extensive improvement in the navigable facilities must relocate public facilities and structures at their own cost. Such

structures and facilities consist of sewer outlets and water intakes located in the bed of the stream by license of the Federal Government. Actually, there is little distinction between the damages suffered by a city in having to relocate such a facility and the damages sustained by any person as a result of relocating a facility which is damaged by a public works project but which is not located within the bed of the stream. The distinction seems to be strictly a technical legal one, and as a matter of policy if the Federal Government is to bear the cost of damages in the one case it should most certainly do so in the other.

To meet this problem and to enable the Federal Government to include as a portion of its cost the cost of relocating such facilities, I have had prepared the attached legislation which I believe to be suitable for inclusion into the Omnibus Rivers and Harbors legislation (H. R. 12080), which at this writing has been reported by the House Public Works Committee and cleared by the Rules Committee.

I am also attaching a copy of the letter from Maj. Gen. E. C. Itschner, Assistant Chief of Engineers for Civil Works, in answer to my request for information concerning the effect of this legislation.

It would be appreciated if you could give your favorable consideration to the inclusion of this language in the Omnibus Rivers and Harbors legislation.

With kindest personal regards,

Sincerely yours,

EARLE C. CLEMENTS.

PROPOSED CLEMENTS AMENDMENT TO OMNIBUS RIVERS AND HARBORS BILL

SEC. —. Whenever, during the construction or reconstruction of any navigation, flood control, or related water development project under the direction of the Secretary of the Army, the Chief of Engineers determines that any structure or facility owned by an agency of Government and utilized in the performance of a governmental function should be protected, altered, reconstructed, relocated, or replaced to meet the requirements of navigation or flood control, or both; or to preserve the safety or integrity of such facility when its safety or usefulness is determined by the Chief of Engineers to be adversely affected or threatened by the project, the Chief of Engineers may if he deems such action to be in the public interest, enter into a contract providing for the payment from appropriations made for the construction or maintenance of such project, of the reasonable actual cost of such remedial work, or for the payment of a lump sum representing the estimated reasonable cost: *Provided*, That this section shall not be construed as modifying any existing or future requirement of local cooperation, or as indicating a policy that local interests shall not hereafter be required to assume costs of modifying such facilities. The provisions of this section may be applied to projects hereafter authorized and to those heretofore authorized but not completed as of the date of this Act, and notwithstanding the navigation servitude vested in the United States, they may be applied to such structures or facilities occupying the beds of navigable waters of the United States.

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., July 5, 1956.

Hon. EARLE C. CLEMENTS,
United States Senate.

DEAR SENATOR CLEMENTS: Receipt is acknowledged of your letter of June 27, 1956, requesting information with respect to the amendment which you propose to offer to the omnibus river and harbor bill.

You are aware, of course, that official expressions of opinion on legislation of this kind are made only by the Secretary of the Army after clearance by the Bureau of the Budget. However, the following information concerning the need for legislation such as you propose is furnished.

The effect of the amendment forwarded with your letter would be to authorize the payment from appropriations made for the construction or reconstruction of navigation, flood control, or related water development projects of the Corps of Engineers of the cost of necessary protection, relocation, or alteration of structures or facilities owned by a city, county, State, or similar government agency; and to waive the navigation servitude with respect to such facilities as sewer outlets, water intakes, or publicly owned bridges located in the bed of a

navigable stream so that the cost of necessary alterations can be paid from appropriations made by Congress for the Federal project.

In the program of replacement of existing low dams in the Ohio River by new and higher structures many sewer outlets, water intakes, and similar structures owned by towns and cities along the banks of the river will have to be altered or relocated so that they will continue to function properly at the new pool levels. Unless Congress enacts legislation providing for payment of such costs by the Federal Government, the expense of altering these local facilities will have to be borne by the local government. Similar problems arise also in connection with streets, highways, bridges, and other facilities affected by reservoir projects throughout the country.

Another problem which has arisen in the case of large reservoir projects which sometimes require the taking of a public-school building or other structure of a local government, is that the Corps of Engineers can pay only the value of the present facility. This amount is usually insufficient to provide a new substitute facility. An example of this type of case is the Pollock Independent School District building in South Dakota, for which special provision was made in section 1 (a) of S. 2093, passed by the Senate July 21, 1955. The language of your proposed amendment would provide general authority for the Chief of Engineers to pay relocation costs in such cases.

Sincerely yours,

E. C. ITSCHNER,
Major General, USA,
Assistant Chief of Engineers for Civil Works.

STATEMENT OF JOSEPH W. KIMBEL, SPECIAL COUNSEL, OFFICE, CHIEF OF ENGINEERS, UNITED STATES ARMY

Mr. KIMBEL. I am J. W. Kimbel. The amendment suggested by Senator Clements is in the nature of an authorization to the Department of the Army, in the construction or reconstruction of water development projects, especially dam and reservoir projects, to contract with agencies of local government for the relocation of structures or facilities such as sewers, water intakes, city hall, or school buildings that are publicly owned, and to pay from the appropriations for the water development project the cost of relocating, protecting, or altering the facility as necessitated by the construction of the Federal project.

There are two things that this would do. Normally we do pay the cost of relocating a utility structure such as a sewer or water intake or something of that kind. We would pay the relocation costs except where it projects into the bed of a navigable stream. There, because of the navigation servitude, in favor of the Federal Government, when a structure is placed in the bed of the stream it is done at the risk of the owner and they must, at their own expense, relocate or change the structure as necessitated by future improvements of the waterway by the United States. That has been held by the Supreme Court.

This amendment would permit us to pay those relocation costs even in the case where the structure is in the bed of the navigable stream.

Senator KERR. Although it was located there to start with, with full notice that if it were to be changed it would be done by the owner?

Mr. KIMBEL. That is quite right. That is one of the purposes of this amendment, and it is limited to those cases of publicly owned structures. The other purpose that would be accomplished by this language would be to provide for payment of relocation costs in the case of a school building, city hall, or any structure of that kind which does not come within the class of a public utility, and where we are limited by general principles of law to paying the value of the

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present structure. That is demonstrated by the Pollock's school case which you probably remember, Senator Case's special legislation, where the value of their present school was somewhere around $200,000 and they estimated it would cost them to build a new school at present-day prices and present-day standards about $400,000.

Without some authorization of this kind or special legislation, as in that case, we cannot pay more than the value of the present structure.

Senator KERR. What is the attitude of the Army with reference to that?

Mr. KIMBEL. We favor something along this line.

Senator KERR. Both with reference to improvements in navigable streams, if publicly owned——

Mr. KIMBEL. That's right.

Senator KERR. Or adjacent to other projects?

Mr. KIMBEL. That's right. It will be applicable in the reconstruction of locks and dams where the pool level be substantially increased. In the Ohio River there will be quite a number of sewer outlets that we understand will be adversely affected by the higher pool levels and will have to be reconstructed.

Senator KERR. And you think that the amendment is worthy?

Mr. KIMBEL. Yes, sir.

PURGATOIRE RIVER PROJECT IN COLORADO

Senator KERR. I have a letter from Senators Millikin and Allott with reference to the proposed Purgatoire River project in Colorado.

(The letter follows:)

JULY 17, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
Senate Office Building., Washington, D. C.

DEAR SENATOR CHAVEZ: We should like to bring to the attention of the committee our interest in the proposed Purgatoire River project in Colorado. That project was included in the present bill when it was reported by the House committee and passed by the House of Representatives. This is a most worthy project and vitally important to the people in the immediate area to be served by the contemplated flood-control project.

This development will provide flood protection for Trinidad, Colo., and in addition will make more water available for industrial and agricultural uses in that expanding area.

During the second session of the 83d Congress, Senator Edwin C. Johnson, Senator Eugene D. Millikin, and Congressman J. Edgar Chenoweth appeared before the Senate Committee on Public Works when it had under consideration H. R. 9859. At that time the committee did not report favorably on the Purgatoire River project, and it was not included in that legislation.

We wish to restate the many difficulties which were experienced by residents, farmers, ranchers, and businessmen in the area because of the severe floods which had, in the past, involved substantial property losses and also loss of lives. Since that date another serious flood has occurred and, although there was not a single life lost, property damage in the area was great. These floods have plagued the area since early in this century. There was loss of life in the 1904 flood.

As we understand it, the project contemplates the construction, maintenance, and operation of a dam and reservoir above the city of Trinidad, Colo. The present plan is the result of extensive investigations in this area which were conducted jointly by the Bureau of Reclamation and the Corps of Engineers. The project envisages an earth dam approximately 208 feet in height which will have a storage capacity of 140,700 acre-feet. Of that amount, we are informed that 46,700 acre-feet will be for flood control, 55,000 acre-feet for conservation, and 39,000 acre-feet of water for sediment retention.

When this project is finally completed, it will assure both the city and rural areas of adequate control of floods which have periled the business and agricultural economy of the area for more than 50 years. Every time the river floods, it seriously disrupts transportation schedules on two major railroads which run through this area and provide an essential transportation link with Colorado and the South. The railroads are the Santa Fe and the Colorado and Southern.

We should like to point out to you the importance from a defense standpoint of the disruption of rail transportation from the South and East. In the State of Colorado, there are many national-defense installations, including industrial plants such as the Colorado Fuel & Iron Corp., at Pueblo, Army installations such as the Pueblo Ordnance Depot, Fort Carson, and Lowry Air Force Base. In addition, there are installations of the Atomic Energy Commission. We know that the members of this committee are well acquainted with the rich storehouse of natural wealth contained in the States of the intermountain west. These include many strategic minerals and important reserves of other minerals.

The additional supplemental irrigation water supply is of great importance to the economy of our State. Colorado has had more than 100 years of farming under irrigation, and this project would regulate the water in the Purgatoire River, providing benefits to many farmers and ranchers who desperately need additional water for their farming and ranching activities. This area is almost entirely dependent upon irrigation to provide water for crops. Dry farming in this area represents less than 1 percent of all the agricultural developments found there. In order for this rich agricultural area to expand, it is necessary that additional water be provided.

In our opinion, construction of this reservoir and completion of the project will provide necessary irrigation for such expansion, and it will prove to be very beneficial to the entire area.

It is our earnest hope that the legislation including this project before your committee will be favorably reported, and that when final action is taken by the Senate, that it will include the Purgatoire River project which is one long needed by this area.

With very best regards, we are,

Sincerely,

EUGENE D. MILLIKIN,
United States Senator.
GORDON ALLOTT,
United States Senator.

H. R. 10423, TO PROVIDE FOR THE CONVEYANCE OF 18.18 ACRES OF LAND WITHIN THE GARZA-LITTLE ELM PROJECT TO THE CITY OF LEWISVILLE, TEX., FOR SEWAGE DISPOSAL PURPOSES

Senator KERR. I have a bill, H. R. 10423 to provide for the conveyance of 18.18 acres of land within the Garza-Little Elm project to the city of Lewisville, Tex., for sewage disposal purposes.

General ITSCHNER. I am somewhat familiar with the problem. I didn't realize there was a bill on it.

Senator KERR. It has passed the House.

General ITSCHNER. We are in favor of disposing of that surplus real estate to the town of Lewisville, Tex., for construction of a sewage disposal plant. However, we feel legislation is not required because the land can be disposed of through the Health, Education, and Welfare Department under existing procedures and we are prepared to dispose of it.

Senator KERR. Although you feel it can be done under existing law you have no objection to the passage of the bill?

General ITSCHNER. Yes, sir.

Senator KERR. Let this statement go in the record, also.

(The document follows:)

UNITED STATES SENATE,
Washington, D. C., July 17, 1956.

Hon. DENNIS CHAVEZ,
Chairman, Senate Public Works Committee,
United States Senate, Washington, D. C.

DEAR MR. CHAIRMAN: The House has just passed the attached bill H. R. 10423, to provide for the conveyance of 15 acres of land more or less within the Garza-Little Elm project to the city of Lewisville, Tex., for sewage disposal purposes.

I hope that your committee may give early and, if possible, favorable consideration to the bill.

Sincerely,

LYNDON B. JOHNSON.

[H. R. 10423, 84th Cong., 2d sess., Rept. No. 2507]

[Omit the part struck through and insert the part printed in italic]

A BILL To provide for the conveyance of fifteen acres of land more or less within the Garza-Little Elm project to the city of Lewisville, Texas, for sewage disposal purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Army is authorized and directed to convey to the city of Lewisville, Texas, a portion of tract A–9 and A–27 within the Garza-Little Elm project, not to exceed ~~fifteen~~ *18.18* acres, required by the city for the construction of its sewage treatment plant, the conveyance to be by quitclaim deed and without monetary consideration therefor, but on condition that in the event the property so conveyed shall fail or cease to be used for disposal purposes, the title thereto shall revert to and revest in the United States; and subject to such reservations, including flowage easements, restrictions, terms, and conditions, as the Secretary of the Army determines to be necessary in the interest of the United States.

Amend the title so as to read: "A bill to provide for the conveyance of 18.18 acres of land within the Garza-Little Elm project to the city of Lewisville, Texas, for sewage disposal purposes."

H. R. 8940, A BILL RELATING TO THE USE OF STORAGE SPACE IN THE HULAH RESERVOIR TO PROVIDE WATER FOR THE CITY OF BARTLESVILLE, OKLA.

Senator KERR. I have another bill, H. R. 8940, for using storage space in the Hulah Reservoir to provide water for the city of Bartlesville, Okla.

General ITSCHNER. We favor that bill.

Senator KERR. That passed the House.

(The bill follows:)

[H. R. 8940, 84th Cong., 2d sess.]

AN ACT Relating to the use of storage space in the Hulah Reservoir to provide water for the city of Bartlesville, Okla.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) the Secretary of the Army is hereby authorized to contract with the city of Bartlesville, Okla., upon such terms and for such period, not to exceed 50 years, as he may deem reasonable, for the use of not to exceed 15,400 acre-feet of storage space in the Hulah Reservoir, for the purpose of providing such city a regulated water supply.

(b) The project for the Hulah Reservoir on the Caney River, authorizd by the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes", approved June 22, 1936, is hereby modified in accordance with the provisions of this Act.

(c) All moneys received by the Chief of Engineers pursuant to this Act shall be deposited in the Treasury of the United States as miscellaneous receipts.

(d) Nothing in this Act shall affect water rights under State law.
Passed the House of Representatives July 16, 1956.
Attest:

RALPH R. ROBERTS,
Clerk.

S. 4222, A BILL TO AMEND THE ACT ENTITLED "AN ACT AUTHORIZING THE CONSTRUCTION OF CERTAIN PUBLIC WORKS ON RIVERS AND HARBORS FOR FLOOD CONTROL, AND FOR OTHER PURPOSES", APPROVED JUNE 28, 1938, AS AMENDED

Senator KERR. I have another bill, S. 4222, to amend the act entitled "an act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes", approved June 28, 1938, as amended.

(The bill follows:)

[S. 4222, 84th Cong., 2d sess.]

A BILL To amend the Act entitled "An Act authorizing the construction of certain public works on rivers and harbors for flood control, and for other purposes," approved June 28, 1938, as amended

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the general comprehensive plan for flood control and other purposes, approved in the Flood Control Act of June 28, 1938, for the Ohio River Basin, is hereby modified to include the construction of flood-control works for the protection of Sykesville, Jefferson County, Pa.

Senator KERR. That concludes the hearing.

(Whereupon, at 1:45 p. m., the hearing was concluded.)

RECONVEYANCE OF MINERAL RIGHTS IN RESERVOIRS

TUESDAY, APRIL 24, 1956

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON FLOOD CONTROL, RIVERS AND HARBORS,
Washington, D. C.

The subcommittee met at 9:45 a. m., in room 412, Senate Office Building, Hon. Robert S. Kerr (chairman of the subcommittee) presiding.

Present: Senators Kerr, Scott, Case, Cotton, and Hruska.

Senator KERR. The committee will come to order. The hearing this morning is for consideration of S. 1384, a bill to provide that the Secretary of the Army shall return certain mineral interests in land acquired by him for flood-control purposes, to the former owners of such land.

(The bill referred to is as follows:)

[S. 1384, 84th Cong., 1st sess.]

A BILL To provide that the Secretary of the Army shall return certain mineral interest in land acquired by him for flood-control purposes, to the former owners of such land

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in any case in which—

(1) the Secretary of the Army has acquired land for flood-control purposes prior to the date of enactment of this Act;

(2) such land is held by the United States on the date of enactment of this Act;

(3) no consideration was provided in the transfer or conveyance to the United States for oil and gas and mineral interests in such land; and

(4) the person from whom the Secretary of the Army acquired such land (or his successor in interest) makes application within 3 years after the date of enactment of this Act, in such form as may be prescribed by the Secretary of the Army,

the Secretary of the Army shall convey such oil and gas and mineral interests without charge to such person (or his successor in interest).

Senator KERR. Congressman Jamie L. Whitten, of Mississippi.

Mr. WHITTEN. Yes, sir; Senator.

Senator KERR. You know Senator Scott, of North Carolina, I think.

Mr. WHITTEN. Yes, I spoke to the Senator as I came in, sir.

Senator, would you like for me to proceed?

Senator KERR. Yes.

STATEMENT OF HON. JAMIE L. WHITTEN, REPRESENTATIVE IN CONGRESS FROM THE SECOND DISTRICT OF THE STATE OF MISSISSIPPI

Mr. WHITTEN. The Federal Government built 4 reservoirs down in the Second District of Mississippi, all part of 1 project. In con-

nection with the taking of the land, they took fee simple title, made no payments at all for any minerals there because there was no value to anybody's knowledge or belief.

In recent years with all the attention throughout the Nation to the possibility of minerals, the people down there have wanted to get the mineral rights back, and the Congress itself has provided in numerous cases—at least two pieces of legislation—where the Federal Government, not having paid anything for it could return the minerals back to the original owner.

In one case, I believe it is by transfer, and in the other case it is for a nominal sum where there is no real value at all. I know that in the Department of Agriculture, with which I deal primarily, they have authority to sell the mineral rights back, and where there has been no showing of any value to them for a flat $1.

The position has been that the Government not having paid anything for these mineral rights, they should be transferred back to their owners.

This is in connection with S. 1384 today. I have a companion bill, which I introduced in the House, and both Senator Stennis and I have worked on this.

In support of this position the Government has changed its position on taking all of this land. Now they are taking flowage rights under somewhat similar circumstances in the middle of this big project, the Chief of the Corps of Engineers at Vicksburg, in whose district it comes, came to me and said those land owners whose land has not been finally taken by court order, he could change it to where their land would not be taken by the Government, but the Government would buy flowage easements. At that time about nine-tenths of the land had been taken by fee simple. I told him I knew I would be in hot water because of those whose land had already been taken, but I certainly wanted to do all I could to help with this problem.

In a project where some of the land owners didn't even have their lands taken, it puts a burden on the Government to reconvey that land to the owners whose land has been taken, where in similar circumstances they take flowage rights instead of taking their land to start with.

Mr. John S. Throop who is an attorney at Water Valley, Miss., which is right in the heart of this area, who has worked on this matter and helped develop it for Senator Stennis and me, or rather developed it and passed it on to us here, would present it for these people, and I would like to leave it up to Mr. Throop to give you the details.

I am familiar with the facts as to the background and as to the fact that some of these landowners didn't even lose the land under the change in Government policy.

Senator KERR. All right. Mr. Throop.

STATEMENT OF JOHN S. THROOP, JR., ATTORNEY, WATER VALLEY, MISS.

Mr. THROOP. Mr. Chairman and gentlemen, I certainly agree with everything Congressman Whitten said about these matters.

Senator KERR. Just one moment. Have the remarks on this bill been received from the Department of the Army and the Bureau of the Budget and been made a part of this record?

Mr. MUTZ. Not yet, but here they are, Senator.

Senator KERR. Let them be made a part of the record at this point.

(Comments referred to are as follows:)

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., May 23, 1955.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate, Washington, D. C.

MY DEAR MR. CHAIRMAN: This is in reply to your letter of March 9, 1955, requesting the views of the Bureau of the Budget on S. 1384, a bill to provide that the Secretary shall return certain mineral interests in land acquired by him for flood-control purposes, to the former owners of such land.

The purpose of the bill is to require the Secretary of the Army, under conditions stated in the bill, to convey without charge oil and gas and mineral interests in lands acquired for flood-control purposes to the former owners of the lands.

While the Bureau of the Budget would favor enactment of a bill to accomplish this purpose, we could not recommend enactment of S. 1384 in its present form. The Secretary of the Army in his report to your committee on this measure is forwarding a draft of a proposed alternative bill which, we believe, would provide a sounder basis on which to accomplish the purpose contemplated by S. 1384.

The Bureau of the Budget would have no objection to the favorable consideration of a bill along the lines of the draft forwarded by the Secretary of the Army. However, we believe that the committee may wish to give consideration to the question of whether applicability of the bill should be confined to lands in reservoir projects which were being acquired by the United States on the 1st of January 1951, as is provided in the Secretary of the Army's proposed draft bill.

Sincerely yours,

DONALD R. BELCHER,
Assistant Director.

DEPARTMENT OF THE ARMY,
June 16, 1955.

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works,
United States Senate, Washington, D. C.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 1384, 84th Congress, a bill to provide that the Secretary of the Army shall return certain mineral interests in land acquired by him for flood-control purposes, to the former owners of such land.

The Department of the Army has considered this bill. Its purpose is to require the Secretary of the Army in any case in which (1) the Secretary has acquired land for flood-control purposes prior to enactment of the bill, (2) such land is held by the United States on the date of enactment, (3) no consideration was provided in the transfer or conveyance to the United States for oil and gas and mineral interests in such land, and (4) the person from whom the Secretary acquired the land (or his successor in interest) makes application therefor within 3 years after enactment of the bill, to convey such oil and gas and mineral interests to the former owner (or his successor in interest) without charge.

In acquiring land for flood-control projects, the Department of the Army has ordinarily acquired full fee simple title to land required for project purposes. The benefits flowing from the application of this policy are manifold, but two aspects are significant: landowners are compensated for their entire interest in the property required for project purposes, thus making available to them the maximum lump-sum return from the property with which to reestablish themselves elsewhere, and at the same time providing the Federal Government with

complete ownership and control over the property for both foreseeable needs and for unforeseeable developments in project requirements. This policy has not only met the needs of the landowner and the Federal Government in most instances, but has also received the approval of the public generally since it provided the Government with lands for project development as required in the public interest.

However, acquisition of land for flood-control projects since World War II has taken place during a period of increased effort to discover and exploit new petroleum resources. It has been inevitable, therefore that some land areas required for flood-control purposes should be affected by these activities. For example, the Department of the Army is acquiring an area in excess of 400,000 acres of land in North Dakota for the Garrison Dam and Reservoir project on the Missouri River. By late 1951 fee title to approximately 325,937 acres of this area, including 13,483 acres comprising the dam site and other construction areas, had been acquired.

However, with the speculation in oil and gas leases which accompanied the significant oil and gas activity in the Williston Basin in 1951, it became apparent that oil and gas rights in the area were acquiring a market value which would increase the cost of procuring the fee title. Therefore, the Department of the Army reviewed its remaining land requirements for the project and concluded that a reservation of oil and gas rights by owners of land within the project area, but not within specified distances of the main dam, spillway, outlets, powerhouse, embankment section, or other structures, would be compatible with project requirements, provided the rights reserved were subordinated to the right of the United States to flood and submerge the land as required and that the exercise of such rights is appropriately restricted.

Some landowners have taken advantage of this opportunity to reserve oil and gas rights, for whatever speculative value they may have; others have elected to convey the full fee simple title to the United States. Since this decision was made in November 1951, fee title to approximately 89,212 acres has been acquired subject to the reservation of oil and gas rights by the owners thereof in the manner indicated above.

The policy applied in the acquisition of land for the Garrison Dam and Reservoir project has been followed in acquiring land for other reservoir projects on the Missouri River, as well as in other areas in which investigations disclosed significant oil and gas leasing activity resulting in speculative values and increased land acquisition costs. In addition, the Department of the Army has reported favorably on several legislative proposals which would authorize the Secretary of the Army to reconvey to former owners oil and gas rights in lands acquired for reservoir projects prior to the adoption of this policy in order to conform the title interest in much of these lands to the title interest acquired after adoption of the policy. The Department's report on S. 536, 84th Congress, a bill to provide for the return to the former owners of certain lands acquired in connection with the Garrison Dam project of mineral interests in such lands was submitted to the chairman, Committee on Interior and Insular Affairs on March 30, 1955.

On the other hand, the Department of the Army has expressed concern that legislative proposals providing for the sale of oil and gas rights in lands acquired for reservoir projects for which land acquisition had been completed prior to 1951 would foreshadow a succession of legislative proposals involving the disposal of mineral interests in lands in areas now the subject of significant oil and gas leasing activity which were acquired by the Federal Government in the past for various public purposes. A development of this nature would seem to suggest the need for determining whether mineral resources belonging to the United States will continue to be exploited under the mineral leasing laws being administered by the Secretary of the Interior or be sold to former owners thereof or to others in a manner similar to sales of surplus properties. In this connection, it is noted that the priority afforded former owners by the Surplus Property Act of 1944, during the period of large-scale disposal of property following World War II, expired in 1950. Finally, such action would seem to also suggest the need for reevaluation of the policy of reserving mineral interests owned by the United States in lands which are conveyed pursuant to general or special statutory authority to States, local governments, and to institutions or organizations for amounts less than the fair market value thereof.

While the enactment of legislation of the scope of S. 1384 would have broad implications on existing national policy relating to management and disposal of

mineral resources of the United States, the Department of the Army recognizes that its action in permitting the reservation of oil and gas rights in lands in certain reservoir projects suggests the desirability of providing legislative authority for the reconveyance of oil and gas rights to other former owners whose property within these reservoirs was previously acquired, provided the Department of the Army first determines that the development, maintenance, and operation of reservoir projects will not be impaired. However, it is concluded that unless revised, S. 1384 would not accomplish this objective. This conclusion is based on the following observations:

(*a*) S. 1384 is limited in scope to "land acquired for flood-control purposes." The policy outlined above, as well as some of the legislative proposals which the Department of the Army has favorably considered, relate to multipurpose reservoir projects.

(*b*) One of the conditions precedent to the conveyance of oil and gas and mineral interests by the Secretary of the Army to the person from whom the Secretary of the Army acquired such land is that "no consideration was provided in the transfer or conveyance to the United States for oil and gas and mineral interests in such land." In acquiring full fee-simple title to lands for reservoir projects, the price paid, whether pursuant to contract or an award in condemnation, constitutes compensation for the estate acquired. Therefore, it appears that this requirement of the bill would limit its application to the relatively few instances in which the owner donated the property or any interest therein to the United States.

(*c*) A collateral condition precedent to the conveyance for which this bill provides is that the person from whom the Secretary of the Army acquired such land (or his successor in interest) makes application for such conveyance. In some instances the owner of the fee title has conveyed mineral rights to others prior to the conveyance of the land to the United States, and it has been necessary for the United States to acquire any such mineral rights required for project purposes from the owner thereof. Therefore, unless this provision in the bill is amended, it appears that persons from whom the United States acquired the mineral rights only would not be entitled to make application for reconveyance.

(*d*) If enacted, S. 1384 would constitute a directive to the Secretary of the Army to convey oil and gas and mineral rights without regard to the effect of such action on the development of flood-control projects for the purposes for which they were authorized.

(*e*) S. 1384 is sufficiently broad in scope to direct the conveyance of oil and gas and mineral rights in any land acquired prior to the date of its enactment and held by the United States on the date of enactment and would, therefore, provide for disposal of mineral interests which have been owned by the United States for many years and, in some instances, have been leased for exploration and exploitation by the Department of the Interior under existing mineral leasing laws.

In order to provide authorization for adjustments in the title interests in land acquired for those reservoir projects to which the 1951 policy has been applied, the Department of the Army would interpose no objection to the enactment of legislation such as that embodied in the enclosed draft bill.

The fiscal effect of this measure cannot be readily ascertained at this time.

The Bureau of the Budget advises that while there is no objection to the submission of this report, it questions whether applicability of the alternative bill attached hereto should be confined to lands within reservoir projects which were being acquired by the United States on January 1, 1951.

Sincerely yours,

ROBERT T. STEVENS,
Secretary of the Army.

A BILL To provide for the reconveyance of oil and gas interests in lands acquired by the United States for reservoir projects to former owners thereof, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Army is authorized, when he determines that the exploration for or exploitation of oil and gas underlying lands within reservoir projects which were being acquired by the United States on January 1, 1951, will not be incompatible with the development, maintenance, and operation of the reservoir project and that the reconveyance of any such oil and gas interests to the former owners thereof will be in the public in-

terest, to convey such oil and gas interests to the former owner thereof (or his successor in interest) upon (1) application made by him within three years from the date of this Act, and (2) payment to the United States of an amount which the Secretary shall determine to be the equivalent of the fair market value thereof.

SEC. 2. Each conveyance of oil and gas interests under this Act shall contain such reservations, restrictions, terms, and conditions as the Secretary determines are necessary for the development, maintenance, and operation of the reservoir project.

Senator KERR. All right, Mr. Throop, you may proceed.

Mr. THROOP. I think we can state this thing briefly. Of course, there are many things which we could consider here, but the main point is this: In the case of the two reservoirs which are affected right around us fee simple title was taken as stated by Congressman Whitten, and since that time I think the Department of the Army will tell you that their policy has been changed, and in these reservoir projects, they are taking flowage easements in most cases rather than a fee simple title, and the problem that has arisen because of that change of policy and, as Congressman Whitten said, about nine-tenths of the lands had been acquired at the time the change in policy came about, and now the Army is operating under a new policy, and we are simply trying to rectify that situation by at least conveying to these former landowners at least these mineral rights on these lands which were taken in most cases by condemnation.

I don't think it makes much difference how they were taken, but what we want the Congress to do is authorize the Secretary of the Army to reconvey these minerals in these projects to former landowners or their successors in interest at the price paid therefor by the Government for the acquisitions.

Actually, as a matter of fact, no price was paid by the Government for the acquisitions of those minerals for the reason that the minerals were not appraised.

Had there been an appraisal of the minerals, the appraisal would certainly have not amounted to more than a nominal value because there has been practically no oil actually down there. About 3 or 4 years ago there was considerable leasing activity, but never were any wells drilled or anything like that.

But now, and during the past year, many of those leases have been dropped by the oil companies, so we might say that the oil or leasing activities have just about played out.

The bill before the committee was introduced by Senator Stennis sometime over a year ago, and since that time we have had a chance to discuss this matter with the Department of the Army on several occasions, and they have even gone so far as to help us in preparing a bill which they could go along with, which the Department could go along with.

I would like to read into the record this bill, which the Department has said it could go along with:

A BILL To provide for the reconveyance of oil and gas interests in lands acquired by the United States for reservoir projects to former owners thereof, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Army is authorized, when he determines that the exploration for or exploitation of oil and gas underlying lands within reservoir projects which were being acquired by the United States on January 1, 1951, will not be incompatible with the de-

velopment, maintenance, and operation of the reservoir project and that the reconveyance of any such oil and gas interests to the former owners thereof will be in the public interest, to convey such oil and gas interests to the former owner thereof (or his successor in interest) upon (1) application made by him within three years from the date of this Act, and (2) payment to the United States of an amount which the Secretary shall determine to be the equivalent of the fair market value thereof.

SEC. 2. Each conveyance of oil and gas interests under this Act shall contain such reservations, restrictions, terms, and conditions as the Secretary determines are necessary for the development, maintenance, and operation of the reservoir project.

I would like to say, gentlemen, that I think as far as we proponents and the Department of the Army are concerned, we are just about together on this matter. The only objection we have to this proposal which the Department of the Army can go along with is that in the second condition down there—

payment to the United States of an amount which the Secretary shall determine to be the equivalent of the fair market value thereof—

we would like to substitute there the payment of any amount which was paid by the Government for the acquisition of those minerals.

Senator KERR (reading):

Payment to the United States of an amount which the Secretary shall determine to be the equivalent of the amount paid by the Government to said owner for the mineral interest being reconveyed—

is that about what you have in mind?

Mr. THROOP. Yes, sir; that is exactly it, and in support of our position, or we might say in justification of it, I would like to call the committee's attention to a bill which was passed at the first session of the 84th Congress, I don't have the proper citation, but it was H. R. 1599, and this bill had to do with the Jim Woodruff Reservoir in Florida and Georgia, and as to the price to be paid.

Public Law 300, 84th Congress, 1st session, provides this:

Any land or gas interest reconveyed under this act shall be sold for an amount determined by the Secretary to be equal to the price for which the land was acquired by the United States—

which is just about what the chairman of this committee just said.

That bill was passed in the session last year. It went on and became Public Law 300 of the 84th Congress.

Gentlemen, I believe that is all I have to say about this matter.

Senator KERR. Thank you very much. Are there any questions of Mr. Throop?

Senator HRUSKA. Yes, Mr. Chairman.

Senator KERR. Senator Hruska.

Senator HRUSKA. Are we to understand from the language in the fifth line there in the bill which you read, Mr. Witness, that this bill would be limited and restricted to those lands which were in the process of being acquired on January 1, 1951?

Mr. THROOP. Yes, those projects being acquired on January 1, 1951. In other words, I think there is a distinction, and I think it is kind of hard for me to express—we were talking about it early this morning. This bill doesn't refer to just those particular tracts of land being acquired on that date.

Senator KERR. But any lands which are a part of the projects in connection with which lands were being acquired on January 1, 1951?

Mr. THROOP. Yes, sir.

Senator HRUSKA. The language is not quite clear in that respect. That is why I asked that question. I think the language as it stands could be construed to mean the lands which were being acquired by the United States on that date.

If it is lands within projects which were in being in this—could you enlighten us on that?

Mr. WHITTEN. Insofar as the language is concerned, the intent was to cover the lands within the projects. We might better go over the language and be certain that we convey our intent, but our intent was to include the lands within the projects, so we would like to go over that and call attention of the committee to any change that might be in order to be sure it included all the lands within those given projects.

The other point I would like to get over, if you will permit me to make another statement is I do not know whether it is clear so far, in discussing conveyance of mineral rights, it sounds like it is minerals, but actually it is the rights.

There has been no development in this area at all. Because of the activity throughout the United States, it creates some interest, but any value that would be attributed to these lands for the minerals would be 100 percent speculation. There is nothing in the world to indicate that there are any minerals in this area.

It leaves it where if the Government sold back on the value of the minerals—if we could be certain that they were sold back based on what was actually paid, it would be $1 a deed perhaps, but when you leave it up to someone's discretion, you get disturbed about those things when we know there has been no payment for it.

There has been no activity on it, there has been no development on it, and anybody that bought it would be 100 percent speculative; but I appreciate the comment with regard to the language, and it will have further study by both Senator Stennis and myself, and it was our intent to include the lands within the project.

Senator KERR. Do you have any questions, Senator Scott?

Senator SCOTT. No.

Mr. THROOP. I would like to make one more statement, Senator.

Senator KERR. Yes.

Mr. THROOP. The Army made an appraisal report on each tract of land acquired in each of these projects, and on each appraisal report, the statement was made "no appraisal was made of the subsurface rights in these lands," and further I think that goes to show that no value was placed on the minerals in the land.

Senator HRUSKA. Which would mean that if the suggested language goes into the law, no payment would be made to the Government itself?

Mr. THROOP. For the reconveyance of these rights.

Senator HRUSKA. For the reconveyance of these rights.

Mr. THROOP. Yes, sir; the way I would read it. I would like to ask you about the method of proceeding.

The bill before the committee at the present time is essentially different from the bill that has been read into the record this morning. Would the committee like us to confer with the Department of the

Army and redraft a bill which we think we can get together on and which will have the approval of the Department of the Army for resubmission to the committee?

Senator KERR. We would be very glad for Senator Stennis and Congressman Whitten to confer with the Department of the Army if they care to, and we would withhold action on this bill pending receipt of further information from the Department of the Army, lacking which, however, I would say that we have a letter here from the Department of the Army that pretty clearly sets forth the matter, but we also have a letter here from the Bureau of the Budget which sets forth their viewpoint, so I would say we will leave it entirely up to Senator Stennis and Congressman Whitten.

Mr. THROOP. Thank you, gentlemen.

Senator KERR. Then we have Mr. Knott with us this morning from the Corps of Engineers. Mr. Knott, we are glad to have you with us.

STATEMENT OF LAWSON B. KNOTT, JR., CHIEF LEGISLATIVE SERVICES BRANCH, REAL ESTATE, OFFICE, CHIEF OF ENGINEERS, DEPARTMENT OF THE ARMY

Mr. KNOTT. Mr. Chairman, since the Department's report has been entered into the record, and in the interests of time, you may prefer that I make no attempt to extract the salient factors which if I were making a statement that would constitute the essence of our statement.

Listening to the testimony thus far today it seems to me advisable to point up two lines of development since 1950 that have a bearing on this particular problem. Along in 1950 to 1951, up in the North Central States and the Missouri area, we ran into a problem in acquiring lands for the reservoir projects on the Missouri River; that lands where there had been no oil and gas activity were definitely affected insofar as the speculative value of minerals was concerned, by the operation in the so-called Williston Basin.

We found that whereas we were acquiring the fee title of the land, the whole bundle of rights, which was required in the construction area of the project, we found that we were having to pay a premium to acquire the full fee simple title since they had these activities on minerals. They began to take on an additional value.

We began to look at our property value, and outside of the construction area, we determined we could acquire the land subject to minerals, provided the mineral rights reserved by the owners were subordinated to our prior rights in connection with the maintenance and operation of the project.

That, of course got our land acquisition cost down, and on an even keel, and we proceeded on that basis after that time.

As that procedure took hold, the demand became apparent that it be applied to other areas, and it has in some areas of Alabama and some in Mississippi, in finishing up our land acquisition requirements.

A parallel development came along in 1953 when it was determined that in reviewing our overall land acquisition procedures concurrently and jointly with the Department of the Interior, in the administration of their projects in the West, it was decided, and late in December of 1953, the policy was published in the Federal Register to this effect: That we would acquire generally up to the 5-year flood frequency.

Again, Mr. Chairman, you have had testimony on that policy and that policy, the adoption of that policy, has resulted in another line of bills, which provide for the reconveyance of lands.

You have had reference here this morning to Public Law 300. There were two last year: Public Law 300 and Public Law 312, which were passed providing for the reconveyance of lands or interests in land in the Jim Woodruff and Demopolis Reservoirs.

At the same time there was presented with respect to the Demopolis Reservoir a bill which provided for the reconveyance of minerals. That, gentlemen, has just recently passed the House, last year, and passed the Senate this year, and was approved by the President on the 29th of March. That is Public Law 459. That to my knowledge is the first one that provides specifically for the reconveyance of minerals.

In viewing this particular bill and the comments made here—this bill, of course, is broader in scope—we commented on the particular provisions of it. I would not say that I am taking issue, but I think it ought to be brought out that while this bill is conditioned on a case where no consideration was provided in the transfer or conveyance to the United States for oil and gas and mineral rights in such land, actually it is very doubtful that you could visualize a case where they would be, or when you view the acquisition of land as the acquisition of a whole bundle of rights, we simply appraise the fee simple part of land.

And, while the presence of mineral activity in the area and the presence of speculation would have a bearing, they have been separated, and you are buying them separately; in the appraisal report we would not value those. That is the general rule followed not only in the appraisal practice but, of course, by the courts whom the appraisers follow in applying the principles.

Senator KERR. The chairman recognizes that, and that was the reason that he made the suggestion that he did a while ago, he would feel that insofar as the status of the matter at the present time is concerned, actually we are more concerned with the language of the bill as suggested by the Department of the Army together with the comments of the proponents of the bill than we are in the original bill upon which the hearings were called.

You heard the suggested change that I just made a while ago, just for consideration. What would be the attitude generally of your Department about that?

Mr. KNOTT. That is with respect to the price, Mr. Chairman?

Senator KERR. That is with respect to the price for the reconveyance which would be determined by the Department of the Army, and it would coincide with what they find to be the amount which at the time of the purchase by the Army was or reasonably could have been allocated to the mineral interests about to be reconveyed.

Mr. KNOTT. I suppose that certainly in theory you could relate it back and determine that. In practice, I would think we are quibbling anyway in the present language of the bill because presumably——

Senator KERR. No, the language of your suggested bill would require that the payment be in an amount which the Secretary determined to be the equivalent of the fair value thereof, and in the absence of the so-stated, that fair value would be at the time of reconveyance, not at the time of the original purchase.

Mr. KNOTT. But it could well be—and that is what I meant partly—adopted still it could well have no separate value.

Senator KERR. I would think—I do not know, but I would want Senator Stennis and Congressman Whitten to think of it—that the purpose might be accomplished by the adding of the language to the bill submitted here so that it would read as follows:

(2) payment to the United States of an amount which the Secretary shall determine to be the equivalent of the amount paid by the Government to said owner for the mineral interest being reconveyed—

or—

equivalent of a fair market value at the time purchased by the Government.

Mr. KNOTT. We have the precedent of the law approved on the 29th of March of this year. It does provide for the payment of a purchase price equal to the fair market value of the oil and gas as determined by the Secretary of the Interior. That is another difference, the Secretary of the Interior is the government authority on Demopolis.

Mr. WHITTEN. If I might presume to interrupt my good friend from the Corps of Engineers, Senator.

Senator KERR. Yes.

Mr. WHITTEN. I think the suggestion on my own opinion would be thoroughly sound and acceptable; that is, it would be reconveyed based on such amount as the Government might determine it paid at the time of taking.

That would give some consideration and would take this thing down, and a mineral consideration might be better than just an oil conveyance.

I am familiar with, in connection with certain agricultural lands and lease authorization for resale, in certain cases where there has been tremendous development and things of that sort, the man representing the Government almost of necessity would have to insist on some relationship between what he got in payment and what the value of the minerals was.

In our case there has been no development whatever, and frankly there is no indication of any real substantive value to existing mineral rights. In those cases where the land happened to turn with regard to oil fields and various other activities, there has been some effort to bring together the present value, so I do not think that the language which Mr. Knott presents here would be refused, but I would like to go on record as supporting the language suggested by the chairman.

Senator HRUSKA. Congressman, you refer to our committee here an act of general legislation. It would not apply only to your case, but it applies to all projects which might be under process on January 1, 1951. Would you rather have it just apply to your projects?

Mr. WHITTEN. It makes no difference to us. It might make a difference to some of the others concerned. I personally have always tried to introduce general legislation, but like all of us when we take care of the problem as we see it, we do not feel we should have to buck the currents we have to in trying to make it general legislation throughout the land; but I think if it is sound for this area, and I think it is, it would be sound for other areas under similar circumstances.

We would not have any insistence that it should be general, if it meets the problem we have.

Senator HRUSKA. In the proposed bill it is all general legislation.

Senator KERR. Yes, but if you read the purpose of it, it is general, and one object would be to make it even more general.

Senator HRUSKA. I was wondering what is your capacity with the Department of the Army.

Mr. KNOTT. I am with the Office of the Chief of Engineers and associated with their real estate organization.

Senator HRUSKA. This present policy is not to buy land in fee at all for these purposes; isn't it?

Mr. KNOTT. Within certain limits, there are lands which prior to 1951 or 1953 depending on whether we are talking about oil on land, which we would have acquired in fee then and do not now acquire in fee.

Senator HRUSKA. I am wondering the way you acquire land now, you acquire simply flowage easements?

Mr. KNOTT. That is right.

Senator HRUSKA. Could this bill be made broad enough so that in the cases where land had been acquired in fee simply by the Government, there could be a reconveyance to the former owner only to those flowage and flooding easements, and not limit the legislation to the oil and mineral rights because in many, many instances that land is good for cultivation, it is good for grazing, it is good for growing crops, and a lot of other things that have value.

It is not only minerals which have value in that bundle which was acquired by the Government.

Mr. KNOTT. Precisely. As a matter of fact, we were presented with this problem, and last year Congress enacted Public Law 300 providing for the reconveyance of lands and interest in lands at the Demopolis Reservoir, and there was then pending and had passed the House a separate bill providing for the reconveyance of minerals on those lands.

This year, because of the pendency of that bill, we simply held off on any action on any minerals reconveyance, and now legislative action has been completed on what is now Public Law 459, which provides for the reconveyance of minerals, so that you have two parallel laws.

The question certainly is well taken that perhaps you might well have conveyed, and had not this other bill been pending, we might well have proceeded to convey back land including mineral rights to the former owners.

Senator HRUSKA. But those bills pertain to specific dams and a specific site in each instance, is that not correct?

Mr. KNOTT. That is correct. There are general bills pending on both the subject of reconveyance and also these general bills on minerals.

However, none has passed—no general legislation is actually in the final analysis. It has been enacted on a resorvoir-by-reservoir basis.

Senator HRUSKA. I would not want my position to be obstructive of the purposes of the bill, but certainly we have here a problem which I think might well stand scrutiny from the standpoint of national policy.

Mr. WHITTEN. If the Senator will permit me, I will agree, and we would express the hope that this would not get in the way. However, I have lived through this in my district, but in connection with the reconveyance of this, you would have the problem of the development of these projects which were started at that time, you would have to go into the question whether the repayment of part of the interest to the local counties for the roads and schools and highways, how it would express the hope that this would not get in the way. However, easements.

There are so many things involved that you have got about a 2 or 3 years' study to properly have all the facts. The act provided for the development of these dams in the area to offset the economic loss, it provided for part of the rent for these lands to go back to the schools and highways to offset part of the tax loss, so since it would take 2 or 3 years to get that matter developed and before us, I would hope that that would not stop this immediate thing.

However, I would say we should go into all those things as a national policy and see what can be done about it.

Senator HRUSKA. Of course, Congressman, the chairman just read into the record what is a piece of general legislation. You might be judging it on the basis of the facts which are before you in your particular instance, but it is of general application.

It seems to me that we either should take into consideration all the general considerations that are applicable as a piece of general legislation, or we should limit it to the projects that you have in mind and pass it with regard to that; namely, one or the other, because some of what you say is going to take 2 or 3 years to go into a broad inquiry into the whole subject will apply to this as much as that by general reconveyance.

Mr. WHITTEN. Let those things happen. When we started into this legislation, we started with a bill to take care of our immediate problem. Then we came into a general legislation. Our primary interest continues to be our immediate problem, and we could meet it with a bill just dealing with our immediate problem, but it was in dealing with the Corps of Engineers and knowing of their change in national policy that we were lead to do it.

Our main interest continues to be the immediate problem in our area.

Senator KERR. What you are telling us is as far as you are concerned, you would be glad to have us amend this bill to where it would take care of your project and no other project?

Mr. WHITTEN. That is right.

Senator KERR. But you are also happy for us to make such amendments as the Department of the Army wants to make it as broad as they seek to have it, provided it includes you?

Mr. WHITTEN. That is right.

Senator KERR. Are there any other questions of this witness?

Senator HRUSKA. One further question.

Senator KERR. Senator Hruska.

Senator HRUSKA. Is there any way of determining how many other projects would be included in the language of this proposed bill?

Mr. KNOTT. It would be something in excess of 20 to 25.

Senator HRUSKA. That is the point I make, Mr. Chairman, if we are going to pass a bill here which will apply to 20 or 25 projects, and we are going to pass it on a situation facing 1 or 2, we might get off on the wrong foot.

Senator KERR. Suppose, Mr. Knott, that the Committee decided to limit the application of this bill to the situation which the Congressman and Senator Stennis had in mind, and supposing further that the Committee would make it applicable to that project, doing so in the language that we have discussed here this morning, would the Committee be safe in assuming that that would have the approval of the Department of the Army?

Mr. KNOTT. Mr. Chairman, the Department of the Army's interest, as I am sure you well understand, is primarily in seeing to it that nothing that is done by way of any disposal actually here will affect the main purpose of the project—that is, its construction, maintenance, and operation.

Senator KERR. It is contemplated that any bill that we would pass would do that.

Mr. KNOTT. That is right, sir. Now so far as that price formula is concerned, it is consistent with the views that have been rather uniformly expressed by the General Services Administration and the Bureau of the Budget with respect to any legislation of this type.

You will recall that the Bureau of the Budget has emphasized that point again, as well as pointing out that as far as they were concerned, it could apply to all projects.

Senator KERR. The question I asked you was addressed solely to your attitude if the committee limited whatever bill it reported out, if it reports one out, to the projects in Mississippi to which the Congressman has referred.

Mr. KNOTT. It would be perfectly all right with the Department of the Army if it were limited to the one project.

Senator KERR. Your observation with reference to the language that it contained would be the same whether it applied to one or more?

Mr. KNOTT. Yes.

Senator CASE. Mr. Chairman, I think the witness would have to withdraw that answer if I bring to his attention what that involves, and I was wanting to illustrate the situation which the Department of the Army would confront before he answered that question.

I suppose that the bill as introduced would affect more lands in my State than any other State in the Union, probably half a million acres—I see Mr. Knott is nodding—because more land is being taken in South Dakota for the Missouri Basin reservoirs than any other State, and there are 3 dams: 1 dam has been practically completed, Fort Randall; Gavins Point is almost completed; and Oahe is one-third completed.

To attempt to limit this to Mississippi would immediately start a protest all across South Dakota and across North Dakota where most all of the Garrison Reservoir is in North Dakota, and about half of the Oahe Reservoir is in North Dakota, and the former landowners in those States would certainly protest if you were going to give such

treatment and apply this to one State, and if you were going to try to do it by a date such as is suggested here by the Department of the Army, lands being acquired on or before January 1, 1951.

The lands for the Fort Randall Dam were in the process of being taken at that time, and a good many of them had been taken, but immediately south of there, the Gavins Point Reservoir area, lands were not being taken then. Immediately north, at Oahe Dam, lands had not been taken yet. You could not justify a situation whereby you would restore mineral rights to the former owners in the middle 1 of 3 projects in the same State on the same river, where all 3 dams were authorized in the same act, the Flood Control Act of 1944.

Senator KERR. I think I would agree with Senator Hruska where we ought to make it pretty general or we ought to make it on general purposes. Certainly the inference is a similar bill could be passed for any State where the representatives of that State sponsored such a bill and wanted it.

The suggestion by the Congressman has some merit that they would like to have the matter which they are sponsoring considered and acted upon, and they would hope that if it were going to be made general that it might very well be passed within a reasonable time; but if the making of it general was going to involve special studies and determination of policy which might take 2 or 3 years to get a general bill, then they would hope that we would go ahead and consider the bill limited to their projects.

Senator COTTON. Mr. Chairman, does this report not indicate that there is already a similar bill pending for the Garrison project?

Senator KERR. I do not think that is in his State. That is in North Dakota, I think.

Senator COTTON. In other words, this is only one of many bills aimed at individual or specific projects?

Senator KERR. Yes.

Senator CASE. There is one other question that occurred to me. The reason why this matter probably did not come up in connection with the Missouri River program earlier was because the Williston Basin had not been discovered.

Senator KERR. It had been discovered, but its significance had not been realized.

Senator CASE. That is correct. You have a great deal of this area now which all along the Missouri River is potentially a part of the Williston Basin, and in addition to that, Mr. Chairman, you have the further problem now that is created by the discovery of some lignite already.

Senator KERR. By the discovery or by the development of the fact that lignite has a uranium content.

Senator CASE. Yes, and on the Fort Randall project the Army engineers have already issued some prospecting permits for prospectors who are looking for uranium ores, not only lignite, but in other forms in which uranium is found.

They are doing that on sort of a permit basis. I think that the legislation ought to be general legislation, and I think that the only questions that arise are whether in the conveyance in the first place the Government made an allowance in its appraisal of the given tract for the mineral values.

If the former owner had the mineral values and they were recognized at the time that was part of the appraisal, then I do not know that he has much there.

Senator KERR. That would be an entirely different situation than where there was no recognition and no value given.

Senator HRUSKA. In an itemized form, much as was pointed out by the witness, the purchase by fee title includes mineral rights. It would be in situations where the appraisal did not include specifically and expressly something for the mineral rights.

Senator CASE. I think that the Army engineers are not seeking to take the mineral rights.

Senator KERR. They do not want to do it because they do not want to have to pay that extra cost.

Senator CASE. When you raise this question, the Army engineers include today some statement that is with the reservation of the mineral rights to the prime owner; where that appears, of course, we do not have any problem.

The problem that bothers me in the draft suggested by the Army comes in section 1, where they say:

> application made by him within three years from the date of this Act, and (2) payment to the United States of an amount which the Secretary shall determine to be the equivalent of the fair market value thereof.

I do not think that the former owner ought to be required to pay the Government for a mineral right.

Senator KERR. That the Government did not pay him for?

Senator CASE. That is right; that the Government did not pay him for.

Senator KERR. That is the reason I made the suggestion a while ago that that be amended either to read:

> Payment to the United States of an amount which the Secretary shall determine to be the equivalent of the amount paid by the Government to said owner for the mineral interest being conveyed—

or shall be the amount determined by the Secretary to equal what was paid by the Government at the time the land was bought by the Government.

Actually, if you have passed a general law with this language, you would not help the landowner a bit, because the fair market value of the mineral interest is what somebody is willing to pay and what somebody is willing to sell for.

Senator CASE. A fair market value in the Williston Basin is entirely different today from what it was when that land was acquired.

Senator KERR. What you would be doing is you would be compelling the individual farmers, in 9 cases out of 10, to go in there and prove the fair market value of his previous mineral rights, in competition with thousands of people in the business who are far better qualified to determine its worth than he is.

Senator CASE. Mr. Chairman, what would you think—and I would like Mr. Knott's opinion—of making the law general and applicable to any lands acquired since December 22, 1944, which was the date of the Flood Control Act of 1944, which I think was the largest omnibus bill up to that time?

If we used that as a working point, that would cover——

Senator KERR. Off the record.

(Whereupon, there was a discussion off the record.)

Senator KERR. You have nothing further to offer for the record?

Mr. KNOTT. No, sir.

Senator KERR. The committee is adjourned at this time.

(Whereupon, at 10:45 a. m., the committee was adjourned subject to the call of the Chair.)

CONSTRUCTION OF DAM ON NORTH BRANCH OF POTOMAC RIVER

TUESDAY, JULY 3, 1956

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON FLOOD CONTROL, RIVERS, AND HARBORS,
Washington, D. C.

The subcommittee met in room 412, Senate Office Building, at 10:05 a. m., Senator Robert S. Kerr (chairman of the subcommittee) presiding.

Present: Senators Kerr, Case, and Hruska.

Senator KERR. We are going to devote about 10 minutes to S. 4099. I wish to place in the record at this point a copy of S. 4099.

(S. 4099 is as follows:)

[S. 4099, 84th Cong., 2d sess.]

A BILL Granting the consent of Congress to the Pittsburgh Plate Glass Company for the construction of a dam on the North Branch of the Potomac River

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That authority is granted to the Pittsburgh Plate Glass Company to construct, maintain, and operate a dam on the North Branch of the Potomac River near North Branch, Maryland, at a point suitable to the interests of navigation approximately five miles south of Cumberland, Maryland.

SEC. 2. Work shall not be commenced on such dam until the plans therefor, including plans for all accessory works, are submitted to and approved by the Secretary of the Army and the Chief of Engineers, who may impose such conditions and stipulations as they deem necessary to protect the interests of the United States.

SEC. 3. The authority granted by this Act shall terminate if the actual construction of the dam hereby authorized is not commenced within one year and completed within three years from the date of enactment of this Act.

SEC. 4. The right to alter, amend, or repeal this Act is expressly reserved.

Senator KERR. The purpose of S. 4099 is to grant authority to the Pittsburgh Plate Glass Co. to construct, maintain, and operate a dam on the north branch of the Potomac River near North Branch, Md., about 5 miles south of Cumberland, Md., at a point suitable to the interests of navigation.

Under the authority granted by this bill, work would not be started on the dam until the plans for the work proposed are submitted to and approved by the Secretary of the Army and the Chief of Engineers, who may impose such conditions and stipulations deemed necessary to protect the interests of the United States.

The authority granted will terminate if the actual construction of the dam is not commenced within 1 year and completed within 3 years from the date of enactment of the act.

The company has applied to the Corps of Engineers for a permit for construction of this dam. They were advised that authority granted by an act of Congress was necessary prior to issuance of the necessary permit, and the application is now pending before the District Engineer, Washington District of the Corps of Engineers.

Senator Beall, do you want to say something about this bill?

STATEMENT OF HON. J. GLENN BEALL, A UNITED STATES SENATOR FROM THE STATE OF MARYLAND

Senator BEALL. Thank you, Mr. Chairman. I appreciate your giving us the time.

I want to say that this bill, S. 4099, is noncontroversial. As a matter of fact, we did not know that legislation of this nature was necessary, that we have to have it.

The Pittsburgh Plate Glass Co. are building a $40 million plant near and about 5 miles east of Cumberland, and they have received the Army Engineers' permission to construct a dam in the Potomac River to supply the water for this plant or to impound the water. Later, public hearings were advertised, and the hearings were held, and there were no protests.

Then we found that there was a law of Congress in 1899 that all navigable rivers before they could be dammed had to have the permission of Congress. We natives had never regarded the Potomac River as being navigable anywhere near Cumberland. As a matter of fact, if you saw it today, you would wonder why it was considered a navigable river.

Mr. Chairman, I just want to say there is no objection to this bill. The Army Engineers are here, who will substantiate I think what I have said, that the Chief of Army Engineers has approved it. Colonel George B. Sumner, the head of the district engineers, is here, and he can speak for his own office, who has direct charge of this project or the Potomac River, also for the Chief of Engineers.

It is important that we have this legislation. As I said, I apologize for bringing it in at this late date, but I did not realize it was necessary. It is important that we have this legislation immediately, because if the dam is to be built it must be built during the low water, and this is the ideal time.

The Pittsburgh Plate Glass are just completing this plant where they will have more than $40 million invested in the most modern plate-glass manufacturing plant in the world there. But if they are going to utilize the plant, you can readily understand they cannot utilize it until they can get the water.

Senator KERR. All right, Senator.

Do the engineers have a statement to make about this?

STATEMENT OF COL. GEORGE B. SUMNER, CORPS OF ENGINEERS, UNITED STATES ARMY, ON BEHALF OF CORPS OF ENGINEERS

Colonel SUMNER. I am Colonel Sumner, the district engineer. We have investigated the proposed dam and found it affects nothing as far as we can see that we have or expect to have in connection with the Potomac River.

It is a very low dam, about 3 feet I believe above the present average water level and impounds probably less than a million gallons of water. It is insignificant as far as——

Senator KERR. Do you suppose that we would be able through your good offices to get a statement from the Department of the Army on the bill?

Colonel SUMNER. Well, of course, as Senator Beall said, we have, as a district, approved it from our point of view.

Senator KERR. How is that?

Colonel SUMNER. We have approved it.

Senator KERR. I understand, but you are here in town now——

Colonel SUMNER. Yes, sir.

Senator KERR.——and I wonder if you would take the time to discuss the matter with your chief here in the hope that we might have or in order that we might have an expression of their attitude on it.

Colonel SUMNER. Yes, sir. I believe we do have the Chief of Engineers' concurrence in it.

Senator KERR. Well, we have had a letter from the Army in which they told us that they would advise us of their attitude.

Colonel SUMNER. I shall certainly do whatever you ask, yes, sir.

Senator KERR. The only thing I am suggesting is if you can be of help in getting them to advise us of their attitude——

Colonel SUMNER. Surely.

Senator KERR.——it is just a matter of expediting the handling of it—it would put us in a position to be able to act on it just that much sooner.

Senator BEALL. Mr. Chairman, may I ask a question?

Senator KERR. Yes, Senator.

Senator BEALL. It was my understanding that the Chief of Army Engineers had approved it and that Colonel Sumner can testify to that effect. I mean they may have written some time ago, but the public hearings were held.

Senator KERR. I was only trying to be of help, Senator.

Senator BEALL. Thank you, sir.

Senator KERR. Our communication from the Army, which I will put in the record, reads as follows:

I am directed by the Secretary of the Army to acknowledge the receipt of your letter dated June 22, 1956, transmitting for report S. 4099, a bill granting the consent of Congress to the Pittsburgh Plate Glass Co. for the construction of a dam on the North Branch of the Potomac River.

The matter is receiving attention and the Department will be pleased to furnish you with a report on this bill at the earliest practicable date.

I was just trying to expedite that date.

Colonel SUMNER. Yes, sir. I will take care of it.

(The communication referred to follows:)

Hon. DENNIS CHAVEZ,
Chairman, Committee on Public Works, United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 4099, a bill "Granting the consent of Congress to the Pittsburgh Plate Glass Co., for the construction of a dam on the North Branch of the Potomac River."

S. 4099 would authorize the Pittsburgh Plate Glass Co. to construct, maintain, and operate a dam on the North Branch of the Potomac River about 5 miles south of Cumberland, Md., subject to approval of plans by the Secretary of the Army and the Chief of Engineers. It is understood that the proposed dam would

be about 8 feet high. The small storage of water would be used for industrial purposes and then returned to the river below the dam.

The Department of the Army interposes no objection to S. 4099.

The bill does not involve the expenditure of funds by the United States.

Inasmuch as the committee has requested that the report be expedited, it is submitted without a determination by the Bureau of the Budget as to whether or not it conforms to the program of the President. As soon as such advice is received it will be forwarded to your committee.

Sincerely yours,

WILBER M. BRUCKER,
Secretary of the Army.

Senator HRUSKA. May I ask the colonel if there will be any maintenance or any responsibility placed upon the Corps of Engineers or on the Federal Government by reason of the construction of this dam? All the responsibility for the construction and maintenance will remain with the builder of the dam? Is that right?

Colonel SUMNER. Yes, sir. The dam, as I say, is a low dam and will be actually under water at high water. As far as we can see, it will have no effect on the river itself.

But I will take care of the other, Senator.

Senator KERR. All right.

Senator BEALL. Thank you very much, Mr. Chairman.

Mr. Chairman, I am not going to take more time, but, just for the record, we have C. H. Swensen, assistant chief engineer for the Pittsburgh Plate Glass, here, who is able to answer any questions you have.

Senator KERR. I would like him to put a statement in the record, a part of which would bear out the affirmative answer that the colonel gave to Senator Hruska with reference to the responsibility for its maintenance.

Senator BEALL. Good.

(The statement requested is as follows:)

Mr. Chairman, and Members of the Subcommittee on Rivers and Harbors, of the Public Works Committee, thank you for the privilege of being here today regarding S. 4099.

My name is C. H. Swensen, assistant chief engineer of the Pittsburgh Plate Glass Co., Pittsburgh, Pa.

The Pittsburgh Plate Glass Co. is now in the process of constructing a plant in Cumberland, Md., for the purpose of manufacturing plate glass. In order to operate the plant, it is necessary that we have sufficient water and, for that reason, we have asked permission of the District Army Engineers, this committee, and the Congress to construct a dam across the North Branch of the Potomac River, in Allegany County, Maryland.

The dam is necessary for the purpose of furnishing the plant with sufficient water to carry on its operations. The dam is essentially a submerged weir which does not necessarily impound the entire flow of the stream. The dam, or weir, will be less than 10 feet in height, impounding less than 1 million gallons of water, and I feel the dam is very definitely necessary to supply my company with sufficient water during the extremely dry seasons when the flow of the river is at a minimum.

My company shall assume complete responsibility for the construction and maintenance of the dam. We will also cooperate with the Office of the District Army Engineers and will abide by the regulations provided by that office in connection with the construction, maintenance, repair, or other disposition of the dam.

Public hearings were advertised and no objections were filed by any individual, company or corporation. I might further add that the project has been approved by the appropriate authorities for the States of Maryland and West Virginia.

We further agree that the United States Government shall be under no obligation whatever with regard to any of the above matters, or any other matter connected with the said dam.

Senator BEALL. We have Mr. L. H. Lawton, resident engineer for the Pittsburgh Plate Glass Co., also here.

Then we have Mr. William C. Walsh, counsel for Pittsburgh Plate Glass, here.

Mr. Chairman, Judge Walsh has prepared a very fine statement outlining the history of the Pittsburgh Plate Glass and the need for this, and I am not going to take up your time reading this statement or asking him to read it, but I would like to insert it in the record so it can be made part of the printed record.

Senator KERR. Very well, sir.

(The statement of William C. Walsh follows:)

STATEMENT OF WILLIAM C. WALSH, OF CUMBERLAND, MD., COUNSEL FOR PITTSBURGH PLATE GLASS CO.

Mr. Chairman and members of the subcommittee of the Public Works Committee of the United States Senate, I am counsel in Cumberland, Md., for the Pittsburgh Plate Glass Co. Pittsburgh Plate Glass Co., whose principal office is in Pittsburgh, Pa., is constructing a 34 million-dollar plate glass plant at North Branch, Allegany County, Md., the site of the plant being on the North Branch of the Potomac River, about 4 or 5 miles south of the city of Cumberland, Md., and, when completed, this plant will be one of the most modern and up-to-date plate glass plants in the world.

The city of Cumberland, Md., has a population of approximately 40,000 with perhaps another 10,000 people living in adjoining suburban areas, and Allegany County, Md., of which Cumberland is the county seat, has a population of approximately 90,000.

Just prior to January 1949, the original plant of the Celanese Corporation of America, which is located about 6 miles west of Cumberland, was employing between 8,000 and 8,500 people. Beginning in January 1949, this Company shifted some of its operations to other plants which it had in various parts of the country, and also made a number of technological improvements in the Cumberland plant, with the result that by the end of 1949, the work force had been reduced to approximately 3,000 people, and this is the number now employed at the plant. This resulting unemployment of more than 5,000 people in the Cumberland area, created a distress situation for those so unemployed, and the Cumberland area was designated as a "distress area" by the Federal Government.

Beginning in 1950, the local authorities and various groups of citizens, took steps to try and attract other industries to the Cumberland area, and in or about the year 1952, these efforts were concentrated in the Cumberland Chamber of Commerce, a fund of more than $160,000 was raised for industrial promotion, a committee on industrial promotion was organized and a director employed. It was through the efforts of this committee and its director, plus the cooperation of various public agencies, Senator Beall, and a large number of other individual citizens, that the new plant of the Pittsburgh Plate Glass Co. was secured, and up to the present time, all local, State, and Federal agencies which have been asked to aid in working out the various problems incident to the location of the plant in the Cumberland area, have been most cooperative.

The plant site was acquired in or about the year 1954; the contract for the erection of the plant was given to the Consolidated Engineering Co. of Baltimore in the summer of 1955; construction of the plant was started in the fall of 1955; and the company hopes to have the plant at least in partial operation by August or September 1956, and it is expected that the plant will be in full operation early in 1957.

The operation of the plant will require the installation of a low dam, the height being less than 10 feet, in the North Branch of the Potomac River at the plant site, and this dam will impound less than 1 million gallons of water.

On January 12, 1956, representatives of the company called on the Corps of Engineers, United States Army, in Washington, D. C., and on the appropriate Maryland authorities in Baltimore, Md., seeking permission to erect the dam, and on February 22, 1956, an application was made to the district engineer of the Corps of Engineers in Washington, D. C. Under date of March 1, 1956,

Lt. Col. John C. Mattina, executive officer of the Corps of Engineers in Washington, D. C., advised Cumberland counsel for the Pittsburgh Plate Glass Co., that before any action could be taken on the company's application, it would be necessary that the company furnish the Corps of Engineers with copies of permits or other approvals granted by the Water Resources Commission of the State of Maryland, and by the appropriate West Virginia authorities, authorizing the construction of the dam. These authorizations were secured and forwarded to Lieutenant Colonel Mattina under date of May 25, 1956, both the Maryland and West Virginia authorities having advised that no permits were needed so far as they were concerned because the proposed dam was to be less than 10 feet in height, and would not impound as much as a million gallons of water.

Under date of May 31, 1956, the Corps of Engineers, United States Army office of the District Engineer, Washington, D. C., issued public notice No. 520, advising that application had been made for the erection of the dam, and stating that any criticisms or protests should be sent to the above district office on or before June 20, 1956, and this notice was published in the two newspapers in Cumberland, Md., and we are advised that no criticisms or protests were received by the Corps of Engineers. However, on or about June 20, 1956, the Corps of Engineers advised United States Senator J. Glenn Beall, that the permit could not be issued without receiving the consent of Congress because of the provisions of a law on navigable waters passed, we believe, in 1898, and now codified as section 401 of title 33 of the United States Code. This law requires congressional consent for the erection of a dam in navigable waters which do not lie wholly within one State.

The Potomac River is considered navigable as far west as Cumberland, Md., and constitutes at that point, the boundary between Maryland and West Virginia, and hence the above law apparently applies to the proposed dam, and the consent of Congress is needed before the Corps of Engineers, United States Army, can issue the necessary permit, and to obtain such consent, Senator Beall introduced Senate bill 4099.

It might also be mentioned, that North Branch is a rural area, with only a hand full of people living near the plant site, and no commercial or other use of the water in the Potomac River at that point is now being made, and the river is also quite shallow in that area.

We are also advised that the district office of the Corps of Engineers has approved the construction of this dam, and the Office of the Chief of Engineers has also approved it. The above plant of the Pittsburgh Plate Glass Co. cannot be properly operated without the erection of the proposed dam, and since the operation of the plant and the employment it will give some ten or twelve hundred people, are essential to the well-being of the people in the entire Cumberland area, it is earnestly requested that a favorable report be given on S. 4099 as promptly as possible, so that the bill can be passed before the adjournment of the present session of Congress, as a failure to pass the bill at this session would seriously delay the operation of the plant, and be highly injurious, both to the company and to all the people of the Cumberland area.

Senator BEALL. If you want a statement from Mr. Swensen in line with colonel——

Senator KERR. No, I presume that the one statement would be comprehensive enough to include the presentation of it from their viewpoint.

Senator BEALL. Yes, sir.

Mr. WILLIAM C. WALSH (counsel, Pittsburgh Plate Glass Co.). There is nothing in that statement about the maintenance of the dam.

Senator KERR. I understand that has to do with the statement that Mr. Swensen said he is going to file.

Mr. WALSH. We will furnish it.

Senator BEALL. Thank you very much.

(Whereupon, at 10:15 a. m., the subcommittee continued in consideration of H. R. 8750.)

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